MID-SOUTH BUSINESS JOURNAL

Volume V, Number 4 October 1985

MEMPHIS STATE UNIVERSITY

Thomas G. Carpenter ..... President

THE FOGELMAN COLLEGE
OF BUSINESS AND ECONOMICS

J. Taylor Sims ..... Dean

BUREAU OF BUSINESS AND ECONOMIC RESEARCH

John E. Gnuschke ..... Director
James McFadyen ..... Managing Editor
B. Lewis Alvarado ..... Research Assistant
Shirley J. Stanphill ..... Research Editor

THIS PUBLICATION IS MADE POSSIBLE
IN PART BY A FINANCIAL GRANT FROM

THE NATIONAL BANK OF COMMERCE
MEMPHIS, TENNESSEE

CONTENTS

Volume V, Number 4 October 1985

VISIONS FOR THE FUTURE 4
J. Taylor Sims

CORPORATE GOALS AND MANAGERIAL MOTIVATION 7
Michael S. Lane and David H. Ciscel

ADVERTISING BY ACCOUNTANTS AND LAWYERS: A SURVEY OF ETHICAL STANDARDS 10
Norman O. Schultz, Robert E. Hite, and Martha S. Lilly

THE RICE OUTLOOK AND SITUATION PRICE FORECASTS: AN EVALUATION OF FORECAST ACCURACY AND USE IN A SELECTIVE STORAGE PROGRAM 15
Emmett W. Elam and Shelby H. Holder

GRADUATE BUSINESS ECONOMICS PROGRAMS BY REGION IN THE UNITED STATES 18
Saul Z. Barr and Gary F. Young

DISCOVERING AND MANAGING CREATIVITY IN THE FIRM 23
John M. Patrick, J. Wayne Patterson, and Thomas W. Zimmerer

The MID-SOUTH BUSINESS JOURNAL is published quarterly by the Bureau of Business and Economic Research, Memphis State University, Memphis, Tennessee 38152, in the months of January, April, July, and October, as a service to the business community. Second-class postage paid at Memphis, Tennessee. POSTMASTER: Send address changes to Bureau of Business Research, Memphis State University, Memphis, Tennessee 38152.

The opinions expressed in the authored articles are not necessarily those of the Bureau, the College, or the University, but are the responsibility of the individual authors. The material may be reproduced without permission if acknowledgment of the source is given.

An Equal Opportunity/Affirmative Action University PS 9/85-491

NEW APPOINTMENTS IN THE FOGELMAN COLLEGE OF BUSINESS AND ECONOMICS

Dr. J. Taylor Sims has been appointed as the new Dean of the Fogelman College of Business and Economics at Memphis State University.

Formerly serving as Professor of Marketing and Dean of the College of Business Administration at Bradley University in Peoria, Illinois, Dr. Sims took office at Memphis State on August 1. He replaces Dr. M. E. Bond, who resigned earlier this year to return to full-time teaching at MSU.

Prior to Dr. Sims' position at Bradley, he served as Associate Dean of the College of Business Administration at Wright State University in Dayton, Ohio. Dr. Sims has also served as Director of WSU's Center for Consumer Research and as a Professor of Marketing. Other positions include Associate Professor and Chairman of Marketing, University of Texas/Odessa; Assistant Professor of Business Administration, University of South Carolina/ Columbia; V.P. of Research Services, Market Research Corporation of America (MRCA); and Group Supervisor and Marketing Manager, MRCA.

Dr. Sims earned his Bachelor of Science degree and Master of Arts degree from Texas Technological College. He received his Ph.D. from the University of Illinois.

Associated with several professional organizations, Dr. Sims holds memberships in the American Marketing Association, the American Institute of Decision Sciences, the Operations Research Society of America, and the Institute of Management Sciences.

In addition to his professional successes, Dr. Sims is married to JoAnn Lacquet Sims, and they have four children.

The Bureau of Business and Economic Research welcomed Dr. John Gnuschke as its new director effective January 1, 1985. Since July 1976, Dr. Gnuschke has been serving as director of the Center for Manpower Studies.

The Center, formerly headed by Dr. Gnuschke, and the Bureau, formerly led by Mr. Paul Lowry, will merge many of their functions under Dr. Gnuschke's leadership. Mr. Lowry retired from the Bureau after 18 years as its director. He is currently serving in the office of the Vice President for Advancement and Continuing Education and as a professor in Finance, Insurance, and Real Estate.

Among the goals Dr. Gnuschke has set for the Bureau is upgrading and expanding its publications program. Generating new sponsored research funding and increasing public awareness of the Bureau head his list of things to be done.

Dr. Gnuschke's responsibilities include instruction in Labor Economics and Manpower Economics. His research responsibilities involve initiating, administering, and conducting funded and non-funded research projects. The Center and the Bureau are also involved in community service projects, publications, and professional training/development seminars.

Before coming to Memphis State University, Dr. Gnuschke was an Assistant Professor of Economics at the University of Nebraska/Omaha. He held several research internships prior to that.

Dr. Gnuschke received his Bachelor of Science degree from Utah State University. He earned his Master of Arts and his doctorate at the University of Missouri/Columbia.

Active both professionally and in community service, Dr. Gnuschke serves on several committees and task forces. In addition to requisite publications, he has authored various reports, conducted many professional seminars, and administered numerous contract research projects.

Dr. Gnuschke is married and has two children.

VISIONS FOR THE FUTURE

J. Taylor Sims•

First, let me express my appreciation for having been selected Dean of the Fogelman College of Business and Economics. I have had an opportunity to meet with many of you since coming aboard August 1, and I truly believe that we are on the threshold of greatness in the College and in Memphis State University. The College is good and will get better. I see no problems, only opportunities!

As I thought about preparing for my meeting with you today, visions of my initial interview and subsequent visits came to mind and of the questions and concerns that each of you had in selecting your new dean. With this in mind, I wish to discuss four important areas with you today: (1) my management style, (2) my philosophy of what the Fogelman College should do, (3) my expectations from you, and (4) my ideas for an action plan for the College. Then I will be glad to answer any questions you may have.

Management Style

As Dean of your College, I have the primary responsibility to create and communicate a vision of the College and its future. That means that we must take a fresh look at the potential for change, the uneasiness that it will naturally create, and the close communication that must take place in order for us to move forward in an understanding and coordinated manner.

In my first month I have met with as many of you—the University administration, deans, business executives, and officials—as I have had time to schedule. There is, of course, a reason for this beyond a real desire to get to know each of you personally. It has been the initial step toward planning, in that I have been able to learn the culture of the College, the University, and the community. I have, of course, found varying degrees of opportunities for action related to my own management style. I'll let you assess these opportunities for yourself as I outline what I plan to give to you and what you must give to me if we are to be successful. I pledge the following:

1. *A willingness to take risks*

   I believe that the path to success is to reach out for goals that may seem unattainable, and this naturally involves a willingness to take risks. I will take the necessary risks to move us forward rapidly.

2. *An environment of trust*

   I trust you. You are good or you wouldn't be here, and you will all be treated as the professionals you are. Although I do believe in and will work toward a master action plan and a clear operating framework for the College, I do not believe in strict controls and limitations on your participation in decision making, or any of your activities for that matter. We may not always agree and I may have to make decisions at times that you do not agree with, but I assure you that you will have had input at all times and be well informed about the reasons for all decisions. The bottom line is that you will have my loyalty, trust, and commitment. I will need yours. You must communicate with me too.

3. *An environment of innovation and creativity*

   We must have a constant stream of communications from the departments to the dean—and vice-versa—that will promote and allow for the acceptance of innovative ideas, solutions, and approaches. This communication must be both lateral between departments as well as vertical through the organizational structure of the College. We must discover and share our various skills in an interdisciplinary approach where needed.

4. *Openness of communication and information sharing*

   Although previously stated, this point bears repeating. We must have a total interactive approach to communication, both lateral and vertical, that results in total sharing, wherever possible, of information and analyses that involve each unit of the College. My door will always be open for discussion on any subject, with the understanding that final decisions will be made through channels with everyone informed.

5. *Clarity of mission, goals, and objectives for the Fogelman College*

   We will develop an action plan together over the next several weeks and months to end any possible con-

•*Dean, Fogelman College of Business and Economics, Memphis State University, Memphis, Tennessee. Address to the College of Business faculty on August 29, 1985.*

fusion over what direction the College should take. I can share with you at this point my broad vision for the College as follows:

A. *Mission*

To become the "flagship" college of Memphis State University, the best business college in the South, and one of the best in the nation.

B. *Goals*

To be well known and respected for:

(1) A faculty that has developed a well balanced professional career in the areas of teaching, research, and internal and external service. It is always difficult to identify balance among these three areas, but I would see weights of 50% on teaching, 30% on research, and 20% on service as a good balance for faculty in the Fogelman College. My own philosophy, which has served me well, is toward a focus on external consulting activities that can be used for classroom experience and the writing of applied articles and papers. This is not to ignore the theoretical contributions of our disciplines in business and economics, but simply to make them operational in the real world.

(2) Excellent preparation of students for careers in business, non-profit organizations, and college teaching. My definition of the ideal graduate can be described as having the following attributes:

a. Good oral and written communication skills.

b. Be computer literate, moving toward fluency.

c. Good general educational background in the fine arts, sciences, and humanities.

d. Good social skills.

e. Good general knowledge of the common body of knowledge in business.

f. An in-depth group of a major field selected from among those available in the College, including real-world applications through on-the-job experiences.

Ideally, graduates who have met these study criteria should be in a position to make an immediate contribution to the organizations employing their skills.

Objectives

1. Be known for excellence with the application of high standards and minimum compromise.

2. Build a reputation for innovation and creativity.
   We should make prudent, but imaginative curriculum changes which utilize the University's and College's strengths to address the current criticisms of business education.

3. Maintain AACSB accreditation.
   We are one of 200 in the nation to have achieved both undergraduate and graduate accreditation and one of the first of 50 to have achieved accounting accreditation at the undergraduate level.

4. Maintain a strong presence in the local, regional, and state programs of economic development, entrepreneurship, and general community service.

Strategies

1. Excellent performance on current programs and also student quality controls (size).

2. Continuous evaluation and revision of curricula where needed, including the development of new dynamic programs. *Example:* Hotel and Restaurant Management.

3. Strong faculty and student recruiting.
   Faculty—Vigorous search for individuals who support and match the model of balance between teaching, research, and service. Close attention to be paid to the overall objectives of excellence, innovation, and growth potential.

4. Continue to strengthen interaction with the business community.
   Continue to enhance existing programs as well as develop new programs of interaction designed to give service, design means of integrating practical experience into the curriculum, and attract resources for programs of mutual interest.

5. Develop from a well coordinated strategic plan a capital fund-raising campaign ready for implementation by 1986-87.
   Seek out additional resources related to faculty and student development areas, e.g., funded chairs, research funds, student scholarships, and salary enhancement. Departments in the College should begin their dream lists now as initial input for planning.

The strategies for accomplishing these objectives must be determined in concert. The strategic vision of the College must be our vision, not just mine or each of yours individually. It will involve continuous close communication, trust, and your commitment and mine to the excellence we wish to achieve. This is the task before us, and I challenge each of you to get totally involved, for believe me, you will have the opportunity.

The Road to Excellence

When we achieve our mission of "becoming the best," it will have happened because of three dynamic sources of success:

1. Communication and knowledge
2. Close professional relationships
3. Resources

And, it is not accidental that the presence of this triad will also enable us to "Get Things Done," which is my personal strategy for success. If you should see "GTD" on any of my action communications, you will know what it means. The eight attributes of excellence from Peters and Waterman's *In Search of Excellence* will serve as my managerial framework for the Fogelman College of Business and Economics. They are reproduced below for your review and consideration. Upon reflection, I am sure you will agree that if we stick to this outstanding management communications model, we cannot help but succeed with the talent that surrounds us. Thank you for your attention and your interest. I look forward to working with each of you during the coming year.

Figure 1

THE EIGHT ATTRIBUTES OF EXCELLENCE
FROM *IN SEARCH OF EXCELLENCE*

1. **BIAS FOR ACTION**: A preference for doing something—anything—rather than sending an idea through endless cycles of analyses and committee reports
2. **STAYING CLOSE TO THE CUSTOMER**: Learning his preferences and catering to them
3. **AUTONOMY AND ENTREPRENEURSHIP**: Breaking the corporation into small companies and encouraging them to think independently and competitively
4. **PRODUCTIVITY THROUGH PEOPLE**: Creating in all employees the awareness that their best efforts are essential and that they will share in the rewards of the company's success
5. **HANDS-ON, VALUE-DRIVEN**: Insisting that executives keep in touch with the firm's essential business and promote a strong corporate culture
6. **STICK TO THE KNITTING**: Remaining with the businesses the company knows best
7. **SIMPLE FORM, LEAN STAFF**: Few administrative layers; few people at the upper levels
8. **SIMULTANEOUS LOOSE-TIGHT PROPERTIES**: Fostering a climate where there is dedication to the central values of the company combined with tolerance for all employees who accept those values

Source: Peters and Waterman, 1982.

CORPORATE GOALS AND MANAGERIAL MOTIVATION

*Michael S. Lane and David H. Ciscel**

Introduction

The managerial revolution in American business has blurred the once sharp categories used in management and economic analysis of corporate performance. The separation of ownership from control and the rise to corporate power of the professional manager have attracted considerable attention since Berle and Means (1934) first explored the issue fifty years ago. Generally, researchers have hypothesized that professional managers will be less profit-oriented than owner-managers. This article examines the beliefs of a large sample of chief executive officers (CEO) concerning the importance of profit maximization as individual motivation.

The research in this area has produced ambiguous results. Economic analysis has centered on the *ex post* performance of large corporations by control type. Kamerschen (1958) found little impact of ownership type on performance in his study of 200 corporations, while Mansen et al. (1968) and Boudreaux (1973) found that owner-controlled firms had higher and more variable profits than professional manager-controlled firms. In more recent studies by Herman (1981) and Bothwell (1980), the conclusions are much more circumspect. After noting exceptions, Bothwell stated: ". . . the analysis provides some additional support for the managerialist proposition that professional managers may deviate away from profit maximizing behavior. . . ." By contrast, Ciscel and Carroll's (1980) study of the determinants of executive salaries concluded that executives are paid for increasing profits, whether through sales growth or cost control.

The weakness of these studies with regard to executive motivations is that they measure after-the-fact performance and rewards. The connection between intention and outcome in an actual business decision-making environment is not causally simple. Exogenous factors from general economic conditions and behavior of rivals to problems of organizational slack have a significant impact on the actual performance that follows from corporate decisions.

**The authors are, respectively, Assistant Professor of Management, West Virginia University; and Chairman and Professor, Department of Economics, Memphis State University.*

While there has been an abundance of research on the goals and objectives pursued by business, there has been little research directed toward the question of behavioral incentives behind the motivations of chief executives where the question of ownership was also addressed. Dent (1959) conducted one of the few original studies which attempted to identify the goals of businesses as expressed by the motivations of 145 upper-level managers. Dent concluded that there was no significant difference in the perception of profits as a behavioral incentive for owner-managers and professional managers. In addition, Dent found large and small businesses were similarly concerned with profits.

There were limitations to the reliability of Dent's findings. Beyond his small sample, he allowed open-ended responses to the question, "What are the aims of top management in your company?" He received varying numbers of responses from the interviewees and was required to code the responses after the fact. And, as he indicated in a check of one-fifth of the responses, there was disagreement in the code approximately 10.0 percent of the time. Consequently, the informality of Dent's research methods obscured the issue of profit maximization.

This article tested the hypothesis that professional managers would be less concerned with profits as a goal of the company than would owner-managers. The results give limited support for assertions of behavioral differences based on managerial attachment to the firm.

Data Base and Analysis

To test the hypothesis that owner-managers and professional managers rely on different incentive systems, this research analyzed the responses of approximately 750 chief executive officers (CEO) who responded to an extensive questionnaire on motivation and goals.

The analysis of the responses consisted of two parts: first, analysis of the short-run profit goal and second, analysis of the long-run profit goal. The distinction between short- and long-run profit incentives is important to the debate over the motivational forces of owner-managers versus professional managers. Short-run profit maximization should be more important to owners since they receive income directly from successful corporate performance. In contrast, the professional manager gains

no direct benefit from short-run profit maximization, though his employment may be based on the long-run performance of the company.

Consequently, separation of ownership from control should have a significant impact on profit incentives in the short run but a reduction of those distinctions in the long run. Professional managers may emphasize goals with direct payoffs, like corporate size, number of new products developed, or sales growth, but if those managerial goals do not translate into increased survivability, i.e., profits, in the long run, the professional manager faces a fate similar to that of the unsuccessful owner-manager.

The current data set allowed for a further distinction between owner-managers and professional managers. The chief executive was asked to rate the importance of the profit incentive at the time of assuming the CEO position and the importance of the incentive at the time of receipt of the questionnaire. Thus, the importance of this crucial motivational incentive can be addressed over the CEO's tenure.

Table 1 provides a breakdown of the CEO sample by ownership type. Seventy-one percent of the managers examined indicated that they were professional managers who were hired at a high level or had joined the firm through merger, but who had no family ties to the original owners or had no major stock holdings in the company.

Table 1
RELATIONSHIP TO COMPANY OF CEO'S

Position	Frequency
Owner-Managers	273
Founder/Owner	178
Major Stockholder	95
Professional Manager	504
A Professional Manager Brought in Because of Merger or Acquisition	61
A Professional Manager (With No Family Ties) Brought in at High Level	443
Total	777

Findings

The CEO respondents were asked to answer several questions concerning profit incentives where the intensity of feeling was ranked from 1 to 5. One indicated that the issue was not important, while five indicated that it was most important. The t-test was the statistical test used to examine the significance of the differences between the means of the various groups in question.

Maximizing Profit in the Short Run

The two groups of managers, upon assuming the presidency, rated the goal of maximizing profit in the short-run differently. Contrary to the hypothesis and the findings of other studies, this difference was reflected in professional managers rating maximizing short-run profits as more important than did the owner-managers (see Table 2). A t-test confirmed a significant difference between the means ($t = -2.71$, $p < .01$).

Table 2
MEAN RANKINGS OF IMPORTANCE OF MAXIMIZING PROFIT

	Owner-Manager	Professional Manager	Total
Short-Run Profit			
Upon Assumption of Presidency	3.46	3.74	3.64
At Time of Survey	3.45	3.52	3.41
Long-Run Profit			
Upon Assumption of Presidency	3.96	4.00	3.99
At Time of Survey	4.63	4.54	4.57

Note: The mean is developed from a 1 to 5 ranking of the importance of profit maximization. One indicates that profit maximization is unimportant, and five indicates it is very important.

No significant difference in the rating of maximizing profits in the short run by owner-managers and professional managers was indicated after the CEOs had been in office for a period of time. At the time of the survey, both groups rated maximizing short-run profits similarly. The difference in the groups' ratings between the time the presidency was assumed and the time the survey was conducted resulted from a shift toward the middle ratings on the ranking scale. Within the owner-manager group this shift resulted in relatively no change in the mean rating of the goal, while within the professional manager group there was a significant change in the mean rating of this goal ($t = 3.12$, $p < .01$). Interestingly, professional managers became *less* interested in short-run profit maximization with experience.

The analysis of maximizing profits in the short run indicated a few key results. First, while there was a difference between how the groups of managers rated profit maximization at the time they assumed the presidency, there was no significant difference at the time the survey was conducted. Second, while a shift toward the central ranking occurred in both groups, there was a significant movement by professional managers in that they collectively viewed maximizing short-run profit as less important at the time of the survey than they did when they assumed the presidency.

Maximizing Profit in the Long Run

There was no significant difference between the groups of managers when they rated maximizing profit in the long run at the time they assumed the presidency, and it was evident that CEOs in both groups differentiated between short-run and long-run profit-maximizing behavior. In both groups a significant majority rated long-run profit maximization as a 3 or higher, and approximately 50.0 percent gave it a rating of most important. There was a significant difference between the groups' ratings of maximizing profit in the short run and maximizing profit in the long run at the time they assumed the presidency (owner-managers, $t = -3.22$, $p < .01$; professional managers, $t = -3.25$, $p < .01$).

Further, it was evident that since the CEOs assumed the presidency increased emphasis was placed on maximizing

long-run profits. Both groups rated maximizing long-run profits significantly higher at the time of the survey than when they assumed the presidency (owner-managers, $t = -8.74$, $p < .01$; professional managers, $t = -11.54$, $p < .01$). Also at the time of the survey, both groups still rated maximizing short-run profits and long-run profits quite differently (owner-managers, $t = -11.99$, $p < .01$; professional managers, $t = -17.005$, $p < .01$).

It was evident that there was no significant difference between the manager groups in how they rated maximizing long-run profits, either at the time they assumed the presidency or at the time the survey was conducted. Both groups significantly increased their rating of the importance of maximizing long-run profits. Also, both groups differentiated between long-run and short-run profit maximization.

Summary and Conclusions

Only in one crucial instance did owner-managers and professional managers differ significantly in their ratings of profit maximization as a goal. In this case, at the time the professional manager assumed his presidency, he rated short-run profit maximization significantly higher in importance. This result provided weak support for the hypothesis that a professional manager's attachment to the firm would dictate lower motivational incentives for profit maximization after being in the position for a period of time.

In the remaining cases there was no significant difference between the profit ratings of owner-managers and professional managers. It was evident, therefore, that the research hypothesis must be rejected at one level. Owner-managers did not rate profit maximization higher than did professional managers. And yet this conclusion did little to explain the increased importance of short-run profit maximization for the professional manager upon assumption of the presidency. The key to explaining this deviation from the remainder of the analyses may well be the fact that as a new president with little financial attachment to the company, profits are a very visible indicator by which he is judged. This conclusion was even more plausible when consideration was given to the professional manager's dramatic shift in rating short-run profits at the time of the survey. It seems evident that as the professional manager became acclimated to being president and solidified his position within the firm, he became less concerned with immediate profits. Both groups of managers significantly increased their ratings of the importance of long-run profit maximization from the time they assumed the CEO position to the time of the survey.

The final result of the analysis highlighted a major problem with the analysis of profit maximization as a goal. As evidenced by the voluminous work in the area, identifying the different motivations of managers turned out to be as difficult a task as differentiating corporations' goals by their past performance. In spite of the problems, this survey of CEO profit goals shed light on the similarities and differences of the profit incentive for the owner-manager and the professional manager.

Note

*These questions were included as part of a larger study conducted for the American Management Association on Presidential Succession by Dr. Robert M. Fulmer. The surveys were completed during the summer of 1978, and approximately 1,500 usable responses were received.

References

Berle, A. A. and G. C. Means. *The Modern Corporation and Private Property.* New York: Macmillan, 1934.

Bothwell, James L. "Profitability, Risk, and Separation of Ownership from Control," *The Journal of Industrial Economics,* 28:303-311, March 1980.

Boudreaux, Kenneth J. "Managerialism and Risk-Return Performance," *Southern Economic Journal,* 39:366-372, January 1973.

Ciscel, David H. and Thomas M. Carroll. "The Determinants of Executive Salaries: An Econometric Survey," *The Review of Economics and Statistics,* 62:7-13, February 1980.

Dent, James K. "The Organizational Correlates of the Goals of Business Managements," *Personnel Psychology,* 7:368, Autumn 1959.

Herman, Edward S. *Corporate Control, Corporate Power.* Cambridge: Cambridge University Press, 1981.

Kamerschen, David R. "The Influence of Ownership and Control on Profit Rates," *American Economic Review,* 58:432-447, June 1958.

Mansen, R. S., John S. Chiu, and David E. Cooley. "The Effect of Separation of Ownership and Control on the Performance of the Large Firm," *Quarterly Journal of Economics,* 435-451, August 1968.

ADVERTISING BY ACCOUNTANTS AND LAWYERS: A SURVEY OF ETHICAL STANDARDS

*Norman O. Schultz, Robert E. Hite, and Martha S. Lilly**

Introduction

The right of professionals to advertise has been firmly established, but professions as well as the states have reserved the right to exercise a reasonable amount of control in the interest of the public. This article examines the question of whether the professions have been consistent in arriving at an acceptable balance between a practitioner's right to free speech and their collective right to control the actions of their members. Are the "Rules of Conduct" consistent across professions or are certain advertising practices allowed in some professions and barred in others? To what extent do the national professional societies offer leadership to the local state societies in framing acceptable ethical codes? The purpose of this study was to examine these issues using the professions of Accountancy and Law as the basis for a comparative analysis of current ethical standards of conduct.

The professions of Accountancy and Law were chosen for a number of reasons. First, their history of enforcing ethical standards in advertising appeared to be parallel in nature. Secondly, they seemed to have similar characteristics with regard to their liability and responsibilities to society. Third, in both instances the selection and enforcement of standards of ethical conduct was shared by the professions and governmental entities. While the state CPA societies and bar associations can and will suspend or revoke a practitioner's membership for violating their Rules of Conduct, that sanction has no legal meaning. Only the various state boards of accountancy in the case of CPAs, and the state supreme courts in the case of lawyers, can punish violators of their rules of professional conduct by withdrawing their right to practice.

This study specifically focused on the comparison of ethical standards as determined by the professions themselves, rather than those enforced by a state agency or court. The policy adopted by the professions is probably less subject to the variances that mark the decisions of the state boards and supreme courts, since public policy is often influenced by political pressures as well as professional considerations.

**The authors are, respectively, Assistant Professors, Department of Accounting & Taxation, Department of Marketing, and Department of Accounting & Taxation, Colorado State University, Ft. Collins, Colorado.*

Literature Review

The professions of Accountancy and Law have faced longstanding prohibitions against the use of advertising. The American Bar Association (ABA) announced its first national code of ethics in 1908 (Lang & Marks, 1980). The Code of Professional Responsibility of the ABA prohibited advertising, for to do so "would mislead the layman . . . produce unrealistic expectations . . . and bring distrust of the law and lawyers" (Camper & Footlick, 1975).

The organized accounting profession in the United States had no prohibitions against advertising until 1922. In that year the American Institute of Certified Public Accountants' (AICPA) Council, apparently following the examples set by the legal profession, adopted a rule against advertising (Ostland, 1978). This restriction on accountants in public practice held for 56 years and prohibited all paid advertising.

Traditional Arguments Against Advertising by Professionals

Historically, there have been several traditional arguments expressed against allowing CPAs in public practice to advertise. First is the "independence" argument, which states that the professional has the need and the obligation to protect and support independence in dealing with clients. Yet, it is not clear how obtaining a client by advertising impairs a CPA's independence, since truthful advertising is a means of informing potential clients that services are available. The fact that clients pay accountants for services rendered in an independent manner is more important (in establishing and maintaining independence) than how the relationship is initiated (Ostland, 1978).

Second is the argument which includes the following:

(1) Clients do not select professional services on the basis of advertising.

(2) Clients obtained by advertising represent merely a shift of business from one firm to another.
(3) Therefore advertising by professionals is an economic waste (Sprague, 1977).

Advertising has been an effective tool in virtually all other consumer services, and many professional firms currently have substantial public relations budgets. The position that advertising results merely in a shift of a client from one firm to another and that there is no overall benefit to the profession is subject to argument. Still, assuming that this assumption is true, the public might be more efficiently served if these shifts were to result in a matching of specialized competence with the requirements of the engagement (Sprague, 1977).

A third argument is that advertising will lower the quality of services rendered. There will always be a small segment of any professional community that reduces the quality of service in order to obtain a client or charge a lower price. It would seem that this will occur regardless of how the relationship is initiated. The true professional will provide the quality of service required whether advertising is utilized or not.

A fourth argument is that the fees will increase due to advertising because the additional costs will be passed on to the consumer. This argument could be generalized to any business endeavor which engages in promotional activities. In reality, advertising often lowers prices by providing a more competitive price environment for consumers and providing a greater volume of business for the sponsor.

A fifth argument is that professional services are so technical that advertising them will "mislead" the public. Further, services are nonstandard and depend on the particular situation at hand. Therefore, a consumer is incapable of making price comparisons and an evaluation of competence. There is an element of truth to this argument; however, the consumer is in relatively the same position regarding comparative evaluations whether advertising is used or not. The difference is that when advertising is not present, the public has less information to utilize in the comparison process. If a promotion is truly misleading, there are presently other statutory and professional regulations prohibiting false and misleading advertising which were not present 62 years ago when professional advertisements were first prohibited (Wheeler-Lea Amendment, 1938).

Counterattacks Against Professional Advertising Prohibitions

In a series of legal cases, antitrust enforcement agencies and private parties attempted to demonstrate that restrictions against professional advertising were either illegal restraints of trade or illegal restraints on free speech (in violation of the First Amendment) (Bloom & Loeb, 1977). A statement by the Supreme Court, "casual and almost offhand," to the effect that commercial advertising is not protected by the First Amendment, served as a standard in advertising regulation for over 34 years (Cohen, 1978). However, the *Bates v. Arizona* Supreme Court decision (1977) had major significance for professionals and advertising practitioners by extending freedom-of-speech privileges to advertising and holding that bar association canons forbidding advertising by lawyers are unconstitutional (Cohen, 1977).

In addition to this action taken by the U.S. Supreme Court, the Federal Trade Commission conducted a full-scale investigation of possible anticompetitive practices in public accounting, including a closer look at the provision in the Code of Professional Ethics of the AICPA which prohibited advertising (Darling, 1977). The Justice Department also considered whether the advertising rule of the AICPA violated federal antitrust laws (Ostland, 1978). In Illinois, the State Director of Registration eliminated the advertising and solicitation prohibitions in the state code of ethics for the accounting profession.

As a result of the Supreme Court decisions, regulatory agency rulings, and individual lawsuits regarding the former advertising restrictions cited above, new codes of professional conduct were developed which permitted advertising, and professionals are now able to actively market their services utilizing advertising media.

The Study

In this study, professional groups were surveyed to determine their ethical standards governing the use of advertising. The groups consisted of two national professional associations, the AICPA and the ABA, and their fifty counterparts at the state level. Each group was asked to provide information concerning the ethical advertising standards that they endorse. Comparisons were then made between the ethical standards adopted by the two national professional organizations as well as between the national societies and their fifty state counterparts.

Results

Policies Adopted by the AICPA

The current AICPA Professional Standards contain four distinct sections. The first, Conceptual Standards, is a philosophical essay that suggests behavior appropriate for CPAs. It was not intended to be used as an enforceable code of ethics. In general, its standards tend to be more restrictive than the remainder of the Institute's guidance on the subject of ethics. The conceptual standards of conduct regarding advertising are consistent with all the other sections of the standards document, including the AICPA Rules of Conduct.

The second set of guidelines, Rules of Conduct, are intended to serve as enforceable ethical standards. Adoption required the approval of the AICPA membership. Rule 502[1] states the ethical standards that must be followed in advertising accounting services. Definitions of the terms used in this rule are provided in the third category of ethical standards, Interpretations of Rules of Conduct. The interpretations are intended to supplement the Rules of Conduct and as such are considered to be part

of the enforceable code of ethics adopted by the AICPA. The interpretation that supplements Rule 502 specifically addresses the question of what is informational advertising. This is an important issue since providing consumer information is the only acceptable goal of professional advertising espoused in the AICPA Concepts of Professional Ethics essay. The interpretation also admonishes practitioners to use advertisements that are dignified and in good taste.

Additional guidance is presented in the form of formal rulings that have been made by the Professional Ethics Division's Executive Committee. The AICPA bylaws state that members whose conduct departs from case precedents will "be requested to justify such departures."

Policies Adopted by the ABA

The ABA provides rules for the use of professional advertising and other ethical guidance for its members in its *Model Rules of Professional Conduct* and *Code of Judicial Conduct* dated August 1, 1983. The ABA Model Rules were drafted to serve as a flexible framework for the standards adopted by the various state bar associations. Rule 7 of the Model Rules,[2] Information About Legal Services, deals with the issue of advertising by lawyers.

Similar to AICPA guidelines, the Model Rules are supplemented with extensive discussion and interpretation sections (Comments) that provide additional guidance. The Model Rules concentrate on the delineation of acts that the Code prohibits. The Comments accentuate the positive aspect of ethics enforcement by prescribing the advertising practices that represent ethical standards that further the best interests of the profession and the public.

A Comparison of the AICPA and ABA Ethical Standards

The AICPA and the ABA model ethical standards are remarkably similar in scope and wording. Both groups endorse and support the concept of "informative" advertising by their members. Both have similar concepts of what constitutes informative advertising. They provide similar checklists as to what information would be helpful and should be communicated to potential clients.

Both the AICPA and the ABA allow fees for standard, routine services to be quoted in advertisements. They allow a professional to state that he specializes in a particular area of professional services. Neither body restricts the use of any advertising media.

While there are a great many more similarities between the AICPA and ABA ethical standards than there are differences, those few differences are not insignificant. The format chosen by the ABA for their standard is more concise and, therefore, is more easily understood. It consists of the Model Rules and a set of accompanying Comments. The AICPA Professional Standards consist of a four-tiered arrangement, with only a portion of the document considered to be binding on the membership.

The ABA model provides administrative procedures that would be helpful to enforcement authorities. The ABA recommends that lawyers who advertise be required to keep a two-year file of all advertisements they place. In addition, all advertisements of legal services by an ABA member require the name of the attorney who has approved the release of the message and who would bear responsibility for any infractions of the Code. In this respect the ABA Code has provisions that control the mechanics of placing an advertisement. The AICPA standards are silent on the subject.

The most significant difference between the two organizations concerns their respective attitudes toward maintaining the dignity of the profession while still allowing their members the right to advertise in an informative manner. The AICPA Professional Standards, in the Interpretation of Rule of Conduct 502, specifically requires that the advertisement be "dignified and in good taste." The ABA Model Rules do not contain that requirement. Instead, the Comments to Rule 7.2 state that "questions of effectiveness and taste in advertising are matters of speculation and subjective judgment," indicating that they prefer to have that issue settled by the various state bar associations.

To summarize, both the AICPA and the ABA have addressed the question of misleading advertising by including in their code of ethics provisions against false, misleading, or deceptive advertising; guidance as to what constitutes "informative" advertising; and in the case of the ABA specific measures that would aid in the enforcement of these rules. Only the AICPA addresses the need for dignity or good taste in advertising in its Professional Standards.

A Comparison of National and State Codes of Ethics: Accounting

All fifty state CPA societies endorse rules of professional advertising ethics that are either identical to Rule of Conduct 502 of the AICPA or that are consistent with the rule in all significant respects. They uniformly prohibit the use of deceptive advertising, using the following qualifiers or combinations of them: false, misleading, deceptive, and untruthful.

Two states, Massachusetts and Oregon, have elected to prohibit the use of the words "expert" or "specialist" in the advertisement of professional accounting services.

The AICPA chose to define ethical behavior in fairly simple terms using Rule of Conduct 502. The fifty state CPA societies unanimously chose to follow the AICPA's lead. This has led to a great deal of conformity within the accounting profession with regard to their perception of ethical standards for advertising.

A Comparison of National and State Codes of Ethics: Legal

The ABA chose a different approach, selecting a fairly comprehensive set of ethical rules for governing the use of advertising. That approach gave the various state bar

associations more positions with which to disagree. A number of state bar associations have selected different rules concerning the definition of ethical advertising practices. While the ABA standards do not restrict lawyers' use of any type of public advertising media, seven state bar associations—Alabama, Florida, Montana, New Mexico, Utah, West Virginia, and Wyoming—have elected to do so. The ABA rules do not prohibit the publication of statistical information within an advertisement providing that its use is not misleading. Seventeen state bar associations took a different position excluding the use of this information. In addition, ABA Model Rules do not require the insertion of a disclaimer in a lawyer's advertisement; eleven state bar associations do require the disclaimers.

The majority of the state bar associations have adopted enforcement rules that are different than those endorsed by the ABA. The ABA Model Rules require advertising lawyers to retain copies of their ads on file for a period of two years. Twenty-eight states do not require this of their members. Three states—Alabama, Kentucky, and Tennessee—have chosen more stringent rules requiring the advertising lawyer to file a copy of the advertisement with the state bar.

Of the fifty state bar associations, thirty-six enforce standards for ethical advertising that are different from the ABA Model Rules in at least one important area concerning the definition of ethical practice or its enforcement. The dissenters include four of the five bellwether states identified by Naisbitt in his futurist studies described in *Megatrends* (1982): California, Colorado, Connecticut, and Florida. Naisbitt defines a bellwether state as one whose adoption of some important social policy generally precedes its acceptance in American society. Of the thirty-six dissenters, twenty-five disagreed with the ABA Model Rules in at least two instances. Seven state bar associations—Alabama, Connecticut, Florida, Hawaii, Iowa, Indiana, and Montana—have rules dissimilar from the ABA regarding three or more of the provisions.

The ABA has refused to address the issue of "dignity" in professional advertising, electing instead to refer this question to the individual state bar associations without a recommendation. Seventeen states have taken a position that standards requiring dignified behavior in advertising are enforceable and have adopted rules that state ". . . a lawyer may publish or broadcast . . . the following information . . . provided that the information disclosed by the lawyer . . . is presented in a dignified manner."

The list of state bar associations that legislate against undignified advertising includes three of Naisbitt's bellwether states: Colorado, Connecticut, and Washington. Another three states have language that, while dissimilar, would tend to discourage advertising that is not tasteful, prohibiting "attempts to attract clients using showmanship, puffery, self-adulation, or hucksterism."

Conclusions

The earlier portions of this article summarized the arguments that have been used in the past to prevent the use of advertising by professionals. Of the five concerns generally cited, only one has withstood the scrutiny of the courts, and that is the fear that advertising could be misleading to the public. It appears that the potential for abuse in this area has been minimized by the legal and accounting professions in their unequivocal endorsement of clear, uniform, and enforceable advertising standards that promote informative advertising and punish deceptive advertising. This review of 102 state and national ethical standards demonstrates that a consensus has been formed both within and across the accounting and legal professions as to what constitutes acceptable and unacceptable advertising practice.

One of the most telling arguments for a prohibition of the advertising of professional services has not played a prominent role in public debate. That concern is the fear that advertising by its members would have an adverse impact on the dignity of the profession. To some this is still a convincing argument. Chief Justice Burger, who dissented in the *Bates* decision, is one of the most vocal critics of the legal profession's allegedly undignified use of advertising.

While the AICPA and the state CPA societies unanimously have presented the need for dignity in advertising, the legal community seems to be split on the issue, with 40 percent of the state associations taking a positive stand. The reasons for the legal profession's uncertain stand toward the issue of maintaining the dignity of the profession are purely speculative. However, it is understandable that lawyers, perhaps more than any other professional group, would hesitate to legislate against conduct that is so subjectively defined. The profession may also be exercising caution in this enforcement area because they have borne the brunt of the recent successful attacks against advertising prohibitions beginning with the *Bates* case.

Despite this mixed support from the ABA, a willingness to take the position that advertising legal or accounting services in an undignified manner should not be tolerated by the members of the profession seems to be a logical extension of the underlying attitudes of member practitioners. Surveys of professionals' attitudes toward advertising have shown the accounting and legal communities to be conservative on the issue (Darling & Hackett, 1978; Sellers & Solomon, 1978; Darling, 1977).

Suggestions For Future Research

Future research could have a significant effect on society by increasing our understanding of the effectiveness and desirability of advertising professional services and assist in the process of determining what, if any, restrictions should apply to the process. The need for studies on this and other social issues has been made clear by the courts who often rely and quote from such research in their decisions. For example, in discussing the United States Supreme Court *Bates* decision, Justice Fogleman, of the Arkansas State Supreme Court, commented on the lack of research that had been done concerning the effects of

advertising legal services using the medium of television (*Arkansas Reports*, 1978).

The first of the hypotheses that could be explored is that the nature of advertising in the legal profession is different from the accounting profession in terms of media usage and message content.

Another hypothesis that could be advanced is that of economic necessity. Are too many lawyers competing for a reasonable market share of a static, inelastic demand for their services? Has the advertising of legal services resulted in merely reallocating market shares or has it increased the number of disputes referred to the legal system for resolution? If the latter hypothesis is true, is Chief Justice Burger's contention that a large portion of those actions are frivolous an accurate statement?

A third hypothesis is that the nature of the accountant and lawyer client-practitioner relationship is markedly different, and that the use of advertisements in the building and maintenance of practices is more effective in the case of lawyers.

Notes

[1]Rule 502 - Advertising and other forms of solicitation. A member shall not attempt to seek clients by advertising or other forms of solicitation in a manner that is false, misleading, or deceptive. Solicitation by the use of coercion, overreaching, or harassing conduct is prohibited. (Effective January 6, 1983.)

[2]Rule 7.1 Communications concerning a lawyer's services. A lawyer shall not make a false or misleading communication about the lawyer or the lawyer's services. A communication is false or misleading if it:

(a) contains a material misrepresentation of fact or law, or omits a fact necessary to make the statement considered as a whole not materially misleading;

(b) is likely to create an unjustified expectation about results the lawyer can achieve, or states or implies that the lawyer can achieve results by means that violate the Rules of Professional Conduct or other law; or

(c) compares the lawyers' services with other lawyers' services, unless the comparison can be factually substantiated.

Rule 7.2 Advertising.

(a) Subject to the requirements of Rule 7.1, a lawyer may advertise services through public media, such as a telephone directory, legal directory, newspaper or other periodical, outdoor, radio, television, or through written communication not involving solicitation as defined in Rule 7.3.

(b) A copy or recording of an advertisement or written communication shall be kept for two years after its last dissemination along with a record of when and where it was issued.

(c) A lawyer shall not give anything of value to a person for recommending the lawyer's services, except that a lawyer may pay the reasonable cost of advertising or written communication permitted by this rule and may pay the usual charges of a not-for-profit lawyer referral service or other legal service organization.

(d) Any communication made pursuant to this rule shall include the name of at least one lawyer responsible for its content.

Rule 7.3 deals with the subject of solicitation, not addressed in this article.

Rule 7.4 Communication of fields of practice. A lawyer may communicate the fact that the lawyer does or does not practice in particular fields of law. A lawyer shall not state or imply that the lawyer is a specialist except as follows:

(a) a lawyer admitted to engage in patent practice before the United States Patent and Trademark Office may use the designation "Patent Attorney" or a substantially similar designation.

(b) a lawyer engaged in Admiralty practice may use the designation "Admiralty," "Proctor in Admiralty," or a substantially similar designation.

References

"Amendments to the Code of Professional Responsibility and Canons of Judicial Ethics," *Arkansas Reports*, Arkansas Bar Association, 263:969-970, 1978.

Bates v. State Bar of Arizona, 97 S. Ct. 2691, 2700 (1977).

Bloom, P. N., and Loeb, S. E. "If Public Accountants Are Allowed to Advertise," *M.S.U. Business Topics*, Summer 1977, pp. 57-64.

Camper, D., and Footlick, J. K. "Discount Lawyers?" *Newsweek*, 85(26):39, June 30, 1975.

Cohen, D. "Advertising and the First Amendment," *Journal of Marketing*, 42(2):59-68, July 1978.

Cohen, S. E. "Supreme Court Adds Broad Protection of Advertising," *Advertising Age*, 48(1):57, May 1977.

Darling, J. R. "Attitudes Towards Advertising by Accountants," *Journal of Accountancy*, 143(2):48-53, February 1977.

Darling, J. R., and Hackett, D. W. "The Advertising of Fees and Services: A Study of Contrasts Between, and Similarities Among Professional Groups," *Journal of Advertising*, 7(2):23-34, Spring 1978.

Lang, L. R., and Marks, R. B. "Consumer Response to Advertisements for Legal Services: An Empirical Analysis," *Journal of the Academy of Marketing Science*, 8(4):357-373, Fall 1980.

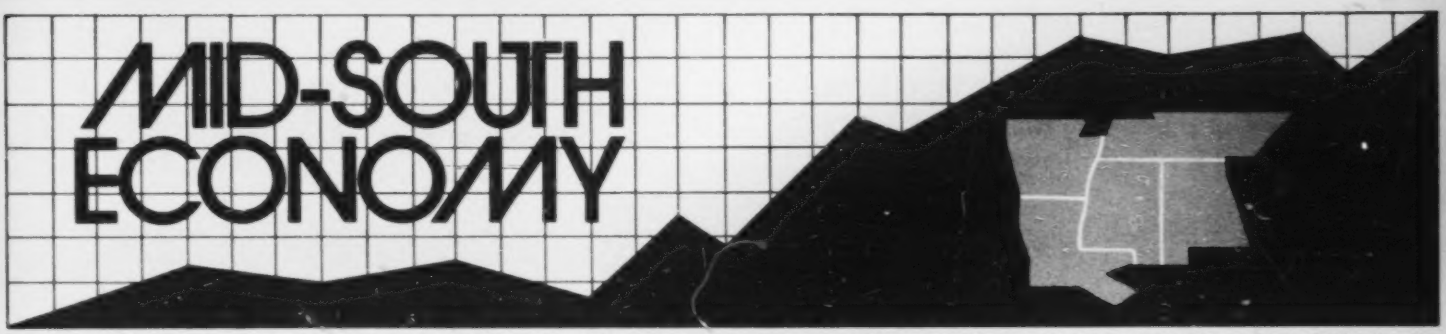
Naisbitt, J. *Megatrends*. New York: Warner Books, 1982.

Ostland, C. A. "Advertising—In the Public Interests?" *Journal of Accountancy*, 145(1):59-63, January 1978.

Sellers, J. H., and Solomon, P. J. "CPA Advertising: Opinions of the Profession," *Journal of Accountancy*, 145(2):70-76, February 1978.

Sprague, D. "The Advertising Dilemma," *The CPA Journal*, 47(1):27-30, January 1977.

Wheeler-Lea Amendment to the Federal Trade Commission Act prohibiting false and misleading advertising.



BUREAU OF BUSINESS & ECONOMIC RESEARCH THE FOGELMAN COLLEGE OF BUSINESS AND ECONOMICS MEMPHIS STATE UNIVERSITY

STATISTICAL SUPPLEMENT

THE MID-SOUTH ECONOMY

The pace of economic activity during the third quarter of 1985 is anticipated to be below expectations. The nation's real Gross National Product grew 2.0 percent above second quarter 1984, one full percentage point below the 3.0 percent rate registered over the last eighteen months. Industrial production for July 1985 was 1.4 percent higher than the level a year ago but below the 3.6 percent pace recorded since January 1984. Production of defense and space products remains robust, up 10.0 percent from a year ago; yet, production of consumer durables remains virtually unchanged. Also, worker productivity registered a scant gain of 0.3 percent over second quarter 1984 levels. Additional weakness in economic activity is being felt in falling corporate profits and a slowdown in real private domestic investment. However, on the plus side, inflation remains subdued, consumers are optimistic, interest rates are easing, and the number of jobs continue to grow, albeit at a pace only slightly ahead of the growth in the civilian labor force. Real disposable personal income is 3.4 percent higher than a year ago. Consumer spending remains robust, with real personal consumption expenditures up 3.7 percent above the second quarter 1984 level. The main obstacle facing the nation's economy is that continued strength in consumer demand will further boost imports, pumping up the already huge deficit in the international merchandise trade balance.

For the Mid-South states, aggregate personal income grew 6.5 percent from first quarter 1984 to first quarter 1985, underperforming the national increase of 7.7 percent. Tennessee was the only Mid-South state to keep pace with the nation. Total employment across the Mid-South states for June 1985 rose a revised 1.4 percent compared to the national increase of 0.9 percent. Sales tax collections across the Mid-South continue to register solid gains over year-ago levels.

LABOR

The Mid-South civilian labor force in July 1985 totaled 8,286,500 persons, an increase of 1.9 percent over last July, while non-agricultural employment registered a solid gain of 2.6 percent or 161,600 jobs. However, the number of persons unemployed remained unchanged at 812,000. Thus, the Mid-South's unadjusted aggregate unemployment rate declined only slightly to stand at 9.8 percent. Unemployment rates across Mid-South MSAs are: New Orleans, 11.7 percent; Little Rock, 6.3 percent; Jackson, 6.8 percent; Birmingham, 7.5 percent; and Nashville, 4.9 percent.

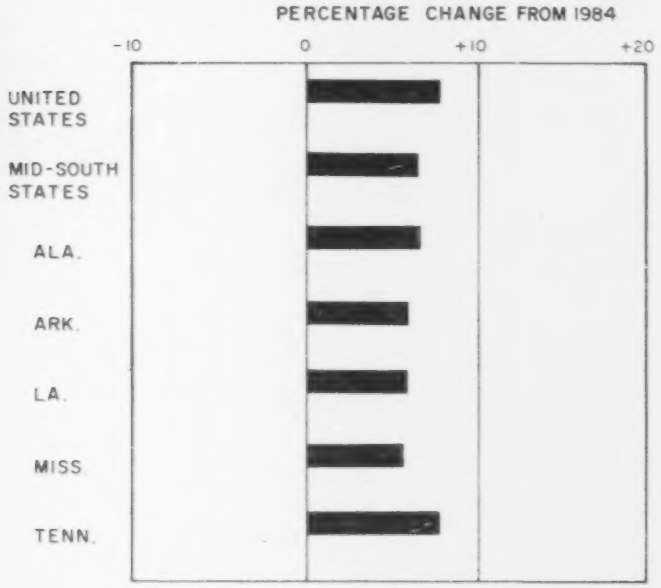
Mid-South manufacturing employment registered a slight decline of 3,800 jobs from last July, while non-manufacturing recorded a gain of 165,400 jobs, an increase of 3.4 percent from a year ago. The slowing in manufacturing job growth from a year ago reflects pressures from imports and the slower rate of growth in the nation's real Gross National Product. Since climbing 1.3 million jobs during the first six quarters of the current expansion, factory employment has registered little growth over the last four quarters. In fact, for the first half of 1985, construction, retail trade, and services have accounted for approximately 8 out of every 10 new jobs nationally. Moreover, recent employment gains have been concentrated among adult women who have garnered 76.5 percent of the 850,000 new jobs created since December 1984.

Finally, a look at government employment across the Mid-South for July 1985 reveals that government employment has grown 2.2 percent from last July compared to a 1.7 percent increase nationally. The total number of government employees in the Mid-South totaled 1,215,300 in July 1985, of which 82.5 percent are employed by state and local governments.

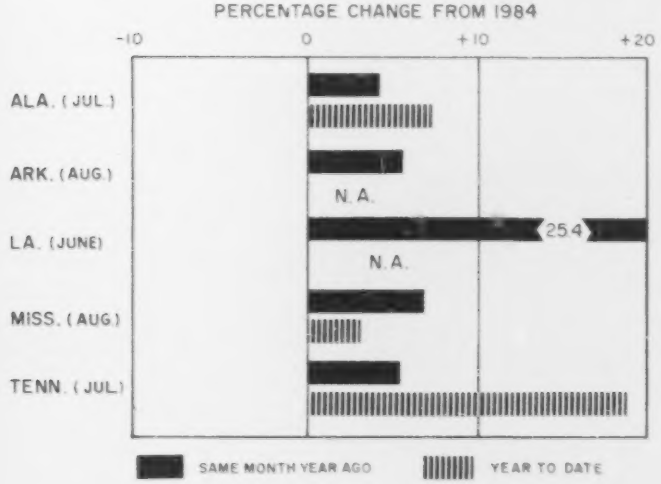
CONSTRUCTION

For the twelve months ending June 1985 compared to the same period in 1984, the dollar value of total building activity in the nation increased 5.9 percent, primarily concentrated in the non-residential sector. Tennessee was the only Mid-South state (excluding Arkansas) which registered a gain in both residential and non-residential

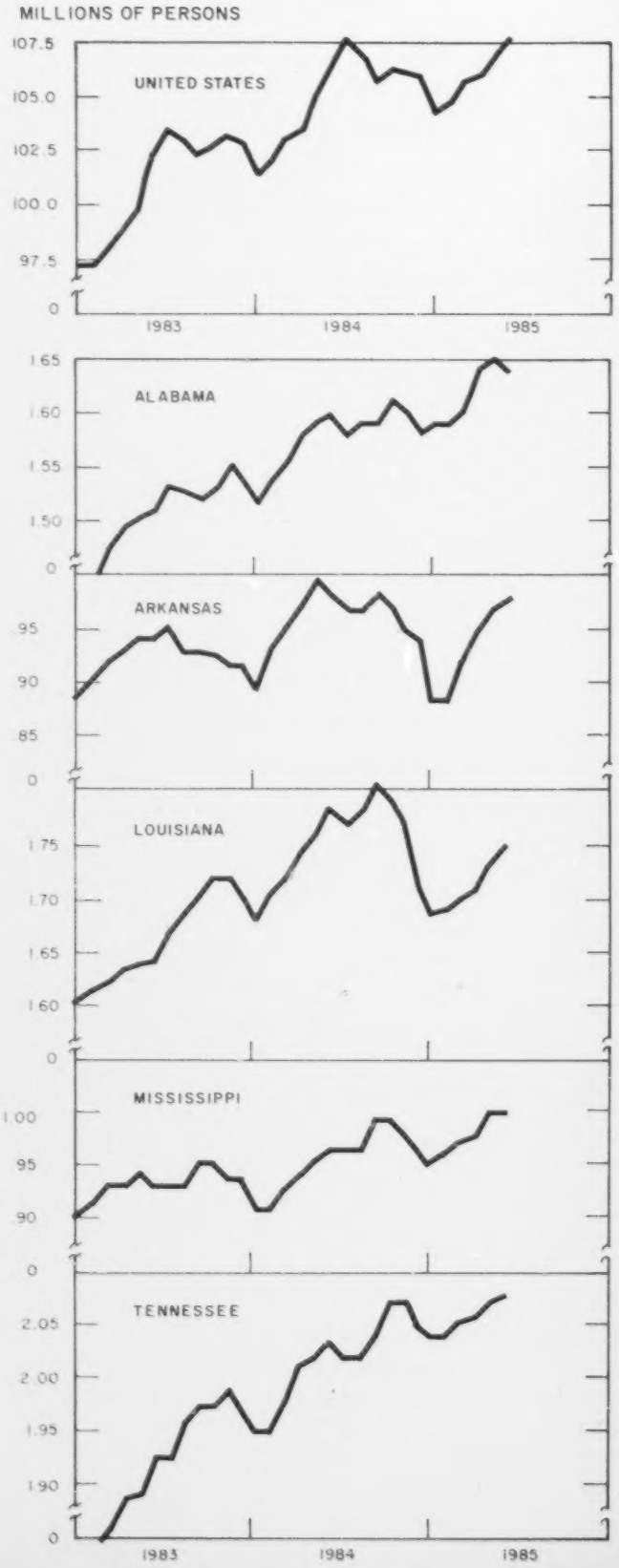
PERSONAL INCOME - I QTR. 1985



SALES TAX COLLECTIONS 1985



TOTAL EMPLOYMENT



SOURCES: BUREAU OF ECONOMIC ANALYSIS
STATE DEPARTMENTS OF EMPLOYMENT SECURITY AND REVENUE

building activity, up 17.2 and 10.9 percent, respectively. Louisiana was the only other Mid-South state to register a positive gain in non-residential activity. Non-residential building activity across Mid-South MSAs registered solid gains, with New Orleans up 21.0 percent, Jackson up 25.0 percent, and Nashville up 48.0 percent. Huntsville recorded $279 million in non-residential building activity permits, quadruple the 1984 level. Office building in Alabama and Mississippi registered solid gains from year-ago levels, while Tennessee experienced a doubling in the dollar value of construction activity in both offices and hospitals. On the residential side, the number of dwelling unit permits issued across the Mid-South declined 17.3 percent to an annual rate of 82,900 units compared to 100,300 units during the comparable 1984 period. Nationally, the annual rate of permits for dwelling units fell from 1.72 to 1.62 million.

The outlook for construction activity across the Mid-South is a mixed bag of economic factors. Home building may be set for a resurgence as mortgage rates continue to

LABOR JULY 1985	United States	Mid-South States				
		Alabama	Arkansas	Louisiana	Mississippi	Tennessee
Civilian Labor Force	117,536,000	1,802,900	1,079,700	1,980,800	1,134,300	2,288,800
Percent Change Year Ago	+1.2	- 0.7	+3.1	+ 1.1	+4.8	+1.7
Unemployed	8,682,000	166,800	94,500	229,100	123,600	198,000
Percent Change Year Ago	-0.4	-21.2	+2.2	+17.5	+1.5	+0.4
Unemployment Rate						
1985	7.4	9.3	8.8	11.6	10.9	8.7
1984	7.5	11.7	8.8	9.9	11.3	8.8
Non-Agricultural Wage & Salary Employees	97,692,000*	1,404,500	789,400	1,575,400	837,400	1,864,600
Percent Change Year Ago	+3.3	+ 0.9	+1.3	- 1.7	+2.5	+2.6
Manufacturing Employment	19,393,000*	349,700	211,500	177,600	218,200	485,300
Percent Change Year Ago	-0.6	- 2.5	-1.8	- 3.1	-0.6	-3.3
Non-Manufacturing Employmment	78,299,000*	1,054,800	577,900	1,397,800	619,200	1,379,300
Percent Change Year Ago	+4.3	+ 2.1	+2.4	- 1.5	+3.7	+4.8
Average Weekly Earnings of Production Workers in Manufacturing	$382.15	$348.43	$299.74	$421.43	$281.32	$331.27
Percent Change Year Ago	+3.2	+ 6.5	+1.5	+ 0.8	+2.6	+4.2
Average Weekly Hours of Production Workers in Manufacturing	40.1	40.8	39.7	40.6	39.4	40.3
Percent Change Year Ago	-0.5	+ 0.2	-1.7	- 1.7	- 1.2	-0.2
Average Hourly Earnings of Production Workers in Manufacturing	$ 9.53	$ 8.54	$ 7.55	$ 10.38	$ 7.14	$ 8.22
Percent Change Year Ago	+3.7	+ 6.2	+3.3	+ 2.6	- 3.9	+4.4

*Seasonally adjusted.

Source: Departments of Employment Security and Survey of Current Business.

CONSTRUCTION[1] JUNE 1985	United States	Mid-South States				
		Alabama	Arkansas	Louisiana	Mississippi	Tennessee
Total Building						
Percent Change Year Ago	+ 5.9	- 6.6	N.A.	- 7.8	- 3.7	+14.6
Residential Building						
Percent Change Year Ago	+ 0.6	- 0.4	N.A.	-27.9	- 5.6	+17.2
Non-Residential Building[2]						
Percent Change Year Ago	+12.9	-10.9	N.A.	+12.4	- 0.4	+10.9
Total Dwelling Unit						
Percent Change Year Ago	- 5.2	-10.9	N.A.	-37.7	-16.4	- 1.9

[1]Twelve-month cumulative rate.

[2]Non-residential data exclude the cost of construction for publicly-owned buildings.

Source: The Federal Reserve Bank of Atlanta from data supplied by the Bureau of Census.

drift downward. Single-family permits registered double-digit gains in Alabama, Mississippi, and Tennessee. However, Mid-South construction employment registered a decline of 4.8 percent from last July as construction employment declined in all of the Mid-South states except Mississippi. And, non-residential construction is anticipated to decline due to tax changes and a slowdown in office and industrial plant construction resulting from the current rise in excess capacity.

FINANCE

Mortgage lending at Mid-South savings and loans totaled $563.9 million for June 1985, a decline of 8.9 percent from last June. Total net savings flow also recorded a decline of $53.7 million from a year ago or 1.7 percent. However, Mid-South commercial banks registered solid gains in deposits, especially time deposits.

At the national level, the rate of increase in consumer and business credit has slowed. The annual rate of change for July 1985 was 6.1 percent compared to a 13.7 percent rate last July. The August 1985 91-day Treasury Bill rate is 7.18 percent, down sharply from the 10.49 percent rate of a year ago. Likewise, the high-grade corporate bond yield has fallen from 13.54 percent last August to 11.64 percent for August 1985.

HOUSING (SHELBY COUNTY)

All indicators of housing activity in Shelby County during the second quarter of 1985 exhibited solid growth, especially for apartment starts and reduced mortgage foreclosures.

Total residential permits issued during the first six months of 1985 compared to the same period in 1984 increased 77.0 percent, from 4,130 in 1984 to 7,346 in 1985. The increase can be attributed to a 139.1 percent increase in apartment unit permits, from 2,281 in 1984 to 5,454 in 1985. By comparison, apartment permits for second quarter 1985 totaled 410. Single-family permits issued during second quarter 1985 declined 0.7 percent from a year ago, while apartment permits increased threefold to 4,221 units.

Total residential starts increased briskly during second quarter 1985, up 30.5 percent from a year ago. This increase is primarily due to a 54.9 percent jump in apartment starts. Single-family starts registered a decline of 12.2 percent. Year-to-date figures for housing starts indicate that apartments account for 64.7 percent of the Shelby County total.

Sales of new single-family homes declined to 588 units during second quarter 1985 or 29.2 percent. Condominium sales also recorded a decline, but on a year-to-date basis remained 41.0 percent above the 1984 level.

FINANCE JULY 1985	United States	Mid-South States	Alabama	Arkansas	Louisiana	Mississippi	Tennessee
Member Banks as of 7/3/85 Percent Change from Comparable Date 1984							
Total Deposits	+ 9.9	N.A.	+11.4	N.A.	+ 8.9	+7.5	+8.5
Demand Deposits	+ 5.6	N.A.	+ 4.5	N.A.	- 3.0	+5.0	+3.7
Time Deposits	+ 7.3	N.A.	+10.9	N.A.	+10.5	+8.4	+8.9
Savings Deposits	+16.9	N.A.	+12.3	N.A.	+42.5	+5.4	+6.7

Source: The Federal Reserve Bank of St. Louis and the Federal Reserve Bank of Atlanta.

SAVINGS AND LOAN ACTIVITY JUNE 1985	Alabama (June)	Arkansas (June)	Louisiana (June)	Mississippi (June)	Tennessee[1] (May)
Mortgage Loans Made (millions)	$103.3	$136.1	$162.7	$65.5	$96.3
Percent Change Year Ago	- 4.2	+ 2.0	-31.1	+45.6	- 0.9
Percent Change Year-to-Date	+ 5.8	-33.4	-27.3	+42.7	+11.6
Net Savings Flow (millions)[2]	$ 68.1	$107.3	$176.2	$20.7	$33.8
Percent Change Year Ago	-10.5	+21.1	-10.9	-44.2	+ 4.7
Percent Change Year-to-Date	+83.9	-47.4	-45.2	-11.4	-68.2

[1]Figures are for total loans made.

[2]Net savings flow equals new savings received plus dividends credited minus savings withdrawn.

Source: Federal Home Loan Banks of Little Rock, Cincinnati, and Atlanta.

New single-family homes sold for an average price of $96,549 during second quarter 1985, an increase of $4,094 over the average during second quarter 1984. Year-to-date 1985 average selling prices for single-family homes increased 5.5 percent compared to an 11.1 percent increase registered during the first six months of 1984. In contrast, the average year-to-date selling price has declined 16.4 percent compared to 1984.

Real estate transfers increased 1.2 percent during the second quarter of 1985 compared to the same period in 1984. The dollar amount totaled $501.4 million in second quarter 1984, a gain of 13.1 percent. Mortgage foreclosures increased 17.8 percent from second quarter 1985 compared to second quarter 1984. However, on a year-to-date basis foreclosures have declined from 756 in 1984 to 720 in 1985. The comparable figure for 1983 was 839.

Housing permits for the incorporated portions of Shelby County (excluding Memphis and Germantown) totaled 161 units for second quarter 1985, an increase of 49.1 percent from second quarter 1984. Bartlett accounted for 61.0 percent of the permit activity which was evenly divided between single-family units (51) and apartments (48). Single-family permits in Collierville totaled 58 units compared to 35 units in 1984.

The inventory of both completed and uncompleted homes in Shelby County reflects a marked increase in second quarter 1985 as compared to second quarter 1984. However, in comparing first quarter 1985 and second quarter 1985 figures, there has been an 8.2 percent reduction in the inventory of uncompleted homes and a 37.2 percent reduction in the inventory of completed homes. These statistics reflect a very active and increasing new home market in Shelby County.

The average selling price of all units sold in Shelby County from second quarter 1984 to second quarter 1985 has increased by 3.7 percent. When viewing this change in the "real dollar concept," housing prices have barely kept pace with inflation. The number of units sold has decreased by 7.1 percent during this one-year time frame. Indications are that demand is strong for the new home market and is softening in the resale market.

Table 1

SHELBY COUNTY HOUSING INDICATORS, SECOND QUARTER, 1984-1985

Items	Second Quarter		Year-to-Date		Percent Change Year-to-Date 1985 From Year-to-Date 1984
	1985	1984	1985	1984	
NEW RESIDENTIAL UNITS					
Total Permits Issued[1]	5,202	1,874	7,346	4,130	+ 77.9
Single-Family	975	982	1,884	1,835	+ 2.7
Duplex	6	2	8	14	- 42.9
Apartments[2]	4,221	890	5,454	2,281	+139.1
Total Starts[1]	2,820	2,160	3,644	3,074	+ 18.5
Single-Family	696	793	1,280	1,388	- 7.8
Duplex	6	--	6	2	+200.0
Apartments[2]	2,118	1,367	2,358	1,684	+ 40.0
Sales Closed					
Single-Family (New)	588	831	1,068	1,365	- 21.8
Condominium	138	204	399	283	+ 41.0
Average Sales Price					
Single-Family (New)	$96,549	$92,455	$94,020	$89,105	+ 5.5
Condominium	$56,102	$56,246	$52,230	$62,496	- 16.4
REAL ESTATE TRANSFERS					
Number	5,196	5,134	9,500	9,279	+ 2.4
Amount (000)	$501,358	$443,348	$900,638	$796,235	+ 13.1
NUMBER OF MORTGAGE FORECLOSURES	403	342	720	756	- 4.8

[1]Expressed in number of dwelling units.

[2]Apartments include condominiums and townhouses.

Table 2

RESIDENTIAL BUILDING PERMITS AND STARTS, INCORPORATED AREAS (EXCLUDING MEMPHIS AND GERMANTOWN)[1] IN SHELBY COUNTY, SECOND QUARTER, 1985

Area	Permits			Starts		
	Single-Family	Duplex[2]	Apartments[2]	Single-Family	Duplex[2]	Apartments[2]
Bartlett	51	--	48	47	--	12
Arlington	--	--	--	--	--	--
Millington	2	--	--	2	--	--
Collierville	58	--	--	39	--	--
Lakeland	2	--	--	2	--	--
Total	113	--	48	90	--	12

[1]Due to local government consolidation between Memphis and Shelby County, residential permits and starts cannot be separately identified for the municipalities of Memphis and Germantown. The statistical data for these two municipalities are included in the data for unincorporated Shelby County.

[2]Number of dwelling units.

Table 3

INVENTORY OF UNSOLD SINGLE-FAMILY HOUSING UNDER CONSTRUCTION AND NEW HOUSING, SHELBY COUNTY, TENNESSEE, JUNE 30, 1985

Square Feet	Summary of Uncompleted Houses, Days Since First Inspection						Summary of Completed Houses, Days Since Final Inspection					
	<30	30-60	60-90	90-180	>180	Total	<30	30-60	60-90	90-180	>180	Total
Under 1,000	1	4	9	6	49	69	2	2	3	1	105	113
1,000 - 2,000	10	24	22	19	55	130	11	6	3	--	108	128
1,200 - 1,400	27	11	39	43	78	198	16	11	8	3	123	161
1,400 - 1,600	19	25	38	56	96	234	16	5	11	6	131	169
1,600 - 1,800	19	8	32	42	55	156	12	3	7	2	63	87
1,800 - 2,000	17	28	37	42	62	186	16	2	4	3	61	86
2,000 - 2,200	12	15	33	37	87	184	11	5	6	3	49	74
2,200 - 2,400	11	14	16	24	79	144	3	3	--	3	35	44
2,400 - 2,600	12	15	22	35	62	146	6	5	5	5	54	75
2,600 - 2,800	8	8	19	12	58	105	3	2	--	2	25	32
2,800 - 3,000	3	6	7	13	59	88	2	4	2	--	21	29
3,000 - 3,200	3	4	4	11	29	51	4	5	--	1	25	35
3,200 - 3,400	1	5	10	13	34	63	1	3	1	1	18	24
3,400 - 3,600	2	5	3	10	33	53	1	2	--	1	18	22
3,600 - 3,800	3	3	2	13	24	45	1	2	3	2	12	20
3,800 - 4,000	2	1	5	9	31	48	--	--	1	--	10	11
Over 4,000	13	10	18	26	149	216	7	2	3	1	62	75
Total	163	186	316	411	1,040	2,116	112	62	57	34	920	1,185

Source: K. William Chandler, Housing Inventory.

Table 4

SALES OF EXISTING AND NEW SINGLE-FAMILY RESIDENTIAL UNITS AND DUPLEXES, MEMPHIS AND SHELBY COUNTY, TENNESSEE, SECOND QUARTER, 1968-1985, AND ANNUAL SUMMARY, 1968-1984

Year	Total Dollar Volume All Price Ranges (Millions)		Number of Units Sold		Average Sales Prices All Units	
	2nd Quarter	Annual	2nd Quarter	Annual	2nd Quarter	Annual
1968	$ 48.0	$187.8	2,992	11,517	$16,050	$16,306
1969	54.0	204.8	3,102	11,851	17,653	17,281
1970	49.0	201.1	2,730	11,264	17,965	17,853
1971	70.7	273.1	3,525	13,727	20,061	19,895
1972	93.0	N/A	4,218	N/A	27,039	N/A
1973	112.0	396.3	4,285	15,278	26,145	25,939
1974	125.6	395.0	4,250	13,789	29,554	28,646
1975	109.6	401.6	3,563	12,942	30,756	31,031
1976	130.1	493.7	3,990	14,985	32,607	32,946
1977	169.3	537.5	4,674	14,700	36,222	36,565
1978	198.4	739.4	4,935	18,359	40,203	40,274
1979	223.0	819.3	4,991	18,371	44,680	44,597
1980	150.8	739.7	3,182	15,248	47,392	48,511
1981	177.5	605.1	3,402	11,455	52,175	52,824
1982	134.1	518.7	2,418	9,590	55,448	54,088
1983	200.7	791.1	3,481	13,684	57,656	57,810
1984	275.5	914.8	4,413	15,074	62,420	60,689
1985	258.0	--	4,098	--	62,949	--

Source: K. William Chandler, Residential Sales Report.

TENNESSEE ECONOMY

Preliminary data for third quarter 1985 indicate that the pace of economic activity in Tennessee has slackened. The state's unadjusted unemployment rate remains stagnated at 8.7 percent for July 1985 compared to an 8.8 percent rate a year ago. The unemployment rate increased in 63 counties, decreased in 28 counties, and remained unchanged in 4 counties. Among Tennessee MSAs the unemployment rates were: Nashville, 5.1 percent; Memphis, 6.7 percent; Knoxville, 7.8 percent; Chattanooga, 7.6 percent; and Tri-Cities (Bristol, Kingsport, and Johnson City), 8.3 percent. Non-agricultural employment registered a solid gain of 2.6 percent from last July, the best change among the Mid-South states. However, while non-manufacturing gained 63,600 jobs from a year ago, manufacturing employment lost 16,800 jobs. Manufacturing losses were concentrated in the textile, apparel, and leather products sectors, with manufacturing gains being registered in food, tobacco, and paper products. Chattanooga was the only Tennessee MSA to register a gain in manufacturing employment from second quarter 1984.

For the twelve months ending June 1985, the dollar value of total building permit activity in Tennessee increased 14.6 percent from the comparable 1984 period. Residential permit building activity rose 17.2 percent, with non-residential activity climbing 10.9 percent. However, the number of dwelling units fell 1.9 percent due to a 9.5 percent decline in the number of multi-family units. Single-family units recorded a 10.8 percent gain, or an annual rate of 15,400 homes.

Favorable growing conditions with timely rainfall, especially in the West, boosted crop yield prospects. Corn, grain, sorghum, cotton, and hay production are anticipated to be higher than the 1983-84 levels. Soybean and tobacco production are expected to decline. Egg production is 2.0 percent higher than a year ago, while milk production climbed 10.3 percent to total 193 million pounds. Red meat production (cattle, hogs, and sheep) during the first half of 1985 compared to the same period in 1984 increased only 0.9 percent. The Tennessee Farm Price Index for July 1985 declined nine index points below the July 1984 level or 6.8 percent. Compared to July 1984, prices were lower for corn, soybeans, sweet potatoes, beef cattle, and eggs. However, these declines were partially offset by higher prices for wheat, hogs, and milk.

U.S. CONSUMER PRICE INDEX - U[1] (UNADJUSTED)
1967 = 100.0

Month	1978 CPI	1979 CPI	1980 CPI	1981 CPI	1982 CPI	Percent Change Month Ago	Percent Change Year Ago	1983 CPI	Percent Change Month Ago	Percent Change Year Ago	1984 CPI	Percent Change Month Ago	Percent Change Year Ago	1985 CPI	Percent Change Month Ago	Percent Change Year Ago
Jan.	187.2	204.7	233.2	260.5	282.5	+ 0.4	+ 8.4	293.1	+ 0.2	+ 3.8	305.2	+ 0.6	+ 4.1	316.1	+ 0.2	+ 3.6
Feb.	188.4	207.1	236.4	263.2	283.4	+ 0.3	+ 7.7	293.2	+ 0.0	+ 3.5	306.6	+ 0.5	+ 4.6	317.4	+ 0.4	+ 3.5
March	189.8	209.1	239.8	265.1	283.1	- 0.1	+ 6.8	293.4	+ 0.1	+ 3.6	307.3	+ 0.2	+ 4.7	318.8	+ 0.4	+ 3.7
April	191.5	211.5	242.5	266.8	284.3	+ 0.4	+ 6.6	295.5	+ 0.7	+ 3.9	308.8	+ 0.5	+ 4.5	320.1	+ 0.4	+ 3.7
May	193.3	214.1	244.9	269.0	287.1	+ 1.0	+ 6.7	297.1	+ 0.5	+ 3.5	309.7	+ 0.3	+ 4.2	321.3	+ 0.4	+ 3.7
June	195.3	216.6	247.6	271.3	290.6	+ 1.2	+ 7.1	298.1	+ 0.2	+ 2.6	310.7	+ 0.3	+ 4.2	322.3	+ 0.3	+ 3.7
July	196.7	218.9	247.8	274.4	292.2	+ 0.6	+ 6.5	299.3	+ 0.4	+ 2.4	311.7	+ 0.3	+ 4.1	322.8	+ 0.2	+ 3.6
Aug.	197.8	221.1	249.4	276.5	292.8	+ 0.2	+ 5.9	300.3	+ 0.3	+ 2.6	313.0	+ 0.4	+ 4.2	323.5	+ 0.2	+ 3.4
Sept.	199.3	223.4	251.7	279.3	293.3	+ 0.2	+ 5.0	301.8	+ 0.5	+ 2.9	314.5	+ 0.5	+ 4.2	324.5	+ 0.3	+ 3.2
Oct.	200.9	225.4	253.9	279.9	294.1	+ 0.3	+ 5.1	302.6	+ 0.3	+ 2.9	315.3	+ 0.3	+ 4.2			
Nov.	202.0	227.5	256.2[a]	280.7	293.6	- 0.2	+ 4.6	303.1	+ 0.2	+ 3.2	315.3	+ 0.0	+ 4.0			
Dec.	202.9	229.9	258.4	281.5	292.4	- 0.4	+ 3.9	303.5	+ 0.1	+ 3.8	315.5	+ 0.1	+ 4.0			
Annual Avg.	195.4	217.4[a]	246.8	272.4	289.1			298.4			311.1					
Annual Change	--	11.4	13.5	10.4	6.1			3.2			4.3					

[a]Revised.

[1]The Consumer Price Index for all Urban Consumers reflects the buying habits of about 80.0 percent of the non-institutional civilian population of the U.S. and also uses a market basket based on the 1972 and 1973 expenditure survey.

Source: U.S. Department of Labor, Bureau of Labor Statistics.

Prepared by: Bureau of Business and Economic Research, Memphis State University.

THE RICE OUTLOOK AND SITUATION PRICE FORECASTS: AN EVALUATION OF FORECAST ACCURACY AND USE IN A SELECTIVE STORAGE PROGRAM

*Emmett W. Elam and Shelby H. Holder**

The research reported in this article had two objectives: (1) to evaluate the accuracy of the *Rice Outlook and Situation* [10, hereafter RO&S] price forecasts and (2) to determine the advantage of using the RO&S price forecasts in a selective storage program. The RO&S is published in September and March by the Economic Research Service, U.S. Department of Agriculture (USDA). Each issue includes a price forecast for the rice marketing year, August 1 through July 31. Using data for the 12 marketing years from 1972 through 1983, the accuracy of the RO&S price forecasts was compared to the accuracy of forecasts from a "naive model," or simply the latest available price at the time a RO&S forecast was published.[1]

Price forecasts are useful to producers only if they help them make better marketing decisions. Whether to sell his crop at harvest or store and sell the rice later in the season is an important decision for a rice producer. If the price received is greater, and/or the variability of the price received less by utilizing the RO&S price forecasts, the forecast information is useful in making storage decisions.

The first section of the article presents a detailed description of the RO&S price forecasts and how the forecasts are developed. The second section compares the accuracy of the RO&S and naive model price forecasts. The third section examines the practical use of the RO&S price forecasts in a selective storage program. The conclusions are presented in the last section of the article.

RO&S Price Forecasts

The September issue of the RO&S is published early in the rice marketing year (August 1 through July 31), and the March release is available a little past the halfway point of the marketing year. As the title suggests, the RO&S is a report of the current outlook and situation in the rice sector. The report provides information relative to supply and demand and also forecasts of the near future. One forecast of widespread interest is the U.S. average price for rough rice (PRBF) received by farmers for the marketing year. The series forecasted is a weighted seasonal average of the monthly PRBFs as published in *Agricultural Prices* [9]. The weighting factors are the estimated volumes of producer sales during each month.

The projections in the RO&S are developed by the Interagency Rice Estimates Committee of the World Agricultural Outlook Board. The committee is composed of members from various USDA agencies such as the Economic Research Service, Foreign Agricultural Service, Agricultural Marketing Service, and the Agricultural Stabilization and Conservation Service. The forecasting methods used by the committee have ranged, over time, from judgmental forecasts based on market fundamentals to formal econometric modeling. A combination of judgment and econometric modeling, as suggested by Thompson and Foote [7, pp. 341-42] and Crowder [3], might best characterize the committee effort over the 12-year period from 1972 through 1983.

Accuracy of RO&S and Naive Price Forecasts

A comparison of the forecast accuracy of the RO&S and naive model is found in Table 1. The naive model forecast was based on the latest price available at the time a particular RO&S price forecast was published. When the RO&S price forecast is made in September, the latest available PRBF is for the month of August. Hence, the naive forecast in September for the marketing year is simply the August price. In March, the price forecast for the marketing year based on the naive model is a weighted average of the PRBFs for the first half of the marketing year and the naive forecast for the second half. The average of the prices during the first six months of the marketing year (i.e., August through January) is known in March. The naive model forecast for the second half of the marketing year is the February PRBF. The season average price forecast in March was formed by multiplying the average price during the first half of the marketing year by 0.75 and the February price by 0.25 and summing. These

**The authors are, respectively, Assistant Professor, Department of Agricultural Economics and Rural Sociology, University of Arkansas, Fayetteville, Arkansas; and Agricultural Economist, Economic Research Service, USDA.*

weights represent the approximate percentage of producer sales made during each half of the marketing year.[2] Weighted average price forecasts were needed for the naive model in order for comparisons to be made with the weighted average price forecasts in the RO&S.

Table 1
FORECAST ACCURACY OF RO&S AND NAIVE PRICE FORECASTS FOR PRBF, 1972-83
(Dollars Per Cwt)

Month	Forecast[a]	
	RO&S	Naive
September		
Bias[b]	$0.72	$0.46
MAE[c]	1.29	1.22
RMSE[d]	1.40	1.48
March		
Bias[b]	0.16	-0.08
MAE[c]	0.40	0.46
RMSE[d]	0.45	0.59

Note: PRBF is the U.S. average price received by farmers for rough rice.

[a]For the marketing year August 1 through July 31.

[b]Bias = $1/n \sum_{t=1}^{n} (A_t - F_t)$. n = number of forecasts—for September n = 8 (i.e., 1972 and 1977-83); for March, n = 12. A_t is the PRBF for the marketing year and F_t is either the September or March RO&S or naive model forecast for the marketing year.

[c]MAE = $1/n \sum_{t=1}^{n} | A_t - F_t |$ with A_t and F_t as defined in b.

[d]RMSE = $\{1/n [\sum_{t=1}^{n} (A_t - F_t)^2]\}^{1/2}$ with A_t and F_t as defined in b.

Three measures were used to compare the forecasts—(1) bias, (2) mean absolute error (MAE), and (3) root mean square error (RMSE). The bias is the average difference between actual and forecasted prices. A primary objective of forecasting is accuracy on an individual year basis, rather than on a long-term basis, as measured by the bias. Thus, two additional measures of forecast accuracy on an individual year basis were tabulated—(1) MAE, the average of the differences (i.e., absolute difference) between actual and forecasted prices, and (2) RMSE, the square root of the average squared difference between actual and forecasted prices.

The bias for the September RO&S forecasts was $0.72 per cwt compared to $0.46 per cwt for the naive model forecasts (Table 1). Since the bias measures the average difference between actual and forecasted prices, these figures indicate that both the RO&S and naive model forecasts underestimated the final weighted season average price. However, using a t-test [6, pp. 278-83], neither bias was found to be significantly different from zero at the 0.05 level.

For September, the results for the individual year accuracy of the RO&S and naive price forecasts were mixed. The MAE for the naive forecasts was $1.22 per cwt compared to $1.29 per cwt for the RO&S forecasts (Table 1). On the basis of RMSE, however, the RO&S price forecasts were more accurate than the naive model forecasts. The RMSE for the RO&S forecasts was $1.40 per cwt, while the RMSE for the naive model forecasts was $1.48 per cwt.

For the March forecasts, the bias was $0.16 per cwt for the RO&S forecasts and -$0.08 per cwt for the naive model forecasts (Table 1). Again, neither bias was significantly different from zero at the 0.05 level. On the basis of individual year accuracy, the RO&S price forecasts were noticeably better than the naive model forecasts. Contrary to what was found for the September forecasts, the MAE for the RO&S forecasts of $0.40 per cwt was $0.06 per cwt less than the MAE for the naive model forecasts of $0.46 per cwt. On the basis of RMSE, the RO&S forecasts were again more accurate than the naive forecasts. The RMSE for the RO&S forecasts was $0.45 per cwt compared to $0.59 per cwt for the naive model forecasts.

A procedure for determining if the squared errors for the naive and RO&S price forecasts were significantly different was suggested by Ashley, Granger, and Schmalensee [1].[3] For September, the squared errors for the RO&S forecasts were not significantly different from the squared errors for the naive forecasts at the 0.05 level. This finding was not expected since the RO&S price forecasts were developed from supply and demand information, which presumably is useful in improving forecast accuracy. For March, however, the squared errors for the RO&S price forecasts were significantly smaller than the squared errors for the naive forecasts at the 0.05 level.

Storage Based on the RO&S Price Forecasts

A simple test was designed to determine if a producer, who owned a rice storage facility, could increase the price received compared to selling at harvest by using the RO&S price forecasts. To conduct the test, it was necessary to convert the RO&S price forecasts for the marketing year to monthly forecasts based on the average seasonal pattern of prices in previous years. These monthly price forecasts were reduced by the variable cost of storage to the forecast month. The variable cost of storage was estimated from information in Wailes, Holder, and Welch [11]. Using T-bill interest rates [2], the price forecasts, net of the variable cost of storage, were discounted to a harvest (September) basis. This set of discounted net prices for the marketing season was compared to the cash price available at harvest. If the cash price at harvest was greater than any of the discounted net RO&S price forecasts, rice was sold at the harvest price. If any of the discounted net RO&S price forecasts were greater than the harvest price, rice was stored to the month which offered the highest expected net discounted price. While this test is simple, it should suggest reasonable conclusions concerning the benefit of using the RO&S price forecasts in making storage decisions.

The results from using the RO&S price forecasts in a selective storage program are shown in Table 2. The average net price received from storage past harvest based on the RO&S price forecasts was $0.16 per cwt greater than the harvest price. There was, however, greater uncertainty involved in storing past harvest. The standard deviation of the net price received [6, p. 46]—a measure of this uncertainty—was $0.22 per cwt greater when rice was

stored beyond harvest compared to a harvest sale. Even though there was greater variability in the net price received from storage beyond harvest, some producers would undoubtedly find the added return attractive. Conversely, more risk-adverse producers might choose to sell at harvest and be subject to less price variability ($1.49 vs. $1.71), at the cost of a somewhat lower net price received ($8.62 vs. $8.78).

Table 2
NET PRICE RECEIVED FROM STORING RICE BASED ON THE RO&S PRICE FORECASTS COMPARED TO THE HARVEST PRICE, 1972 AND 1977-83
(Dollars Per Cwt)

Selling Strategy	Average Price[a]	Standard Deviation
Harvest (Sept.) sale	$8.62	$1.49
Sale based on RO&S price forecasts[b]	8.78	1.71

[a]The price series used was the U.S. average price received by farmers for rough rice (PRBF).

[b] The price for post-harvest sales was reduced by the variable cost of storage from September to the sale month and then discounted to a September basis. This made it possible to compare post-harvest selling prices to harvest selling prices.

Conclusion

The forecast accuracy of the RO&S and naive models was compared. Based on RMSE, the RO&S price forecasts were more accurate. The results were mixed, based on MAE. For September, the MAE for the naive price forecasts was less than the MAE for the RO&S price forecasts; but for March, the RO&S price forecasts had a lower MAE than the naive forecasts. The fact that the RO&S price forecasts were only marginally better than the naive model forecasts implies that the supply and demand information utilized in making the RO&S price forecasts, for the most part, had already been discounted in cash prices [8]. This was likely the result of the activity of cash rice traders who were aware of the same supply and demand information. Their trading activity in the cash market imparted the supply and demand information to cash prices. Hence, the naive model forecasts, which were based on the latest available cash price, provided forecasts almost as accurate as the RO&S price forecasts.

A test was designed to determine the benefit from using the RO&S price forecasts to selectively store rice beyond harvest. The results showed that the average net price received was increased $0.16 per cwt, over the harvest price, by selectively storing rice. The variance in the net price received from selectively storing rice past harvest was increased $0.22 per cwt compared to the variance of the harvest price. Hence, risk-adverse producers might choose to sell at harvest, and be subject to less variability, at the cost of a somewhat lower net price received.

Finally, we estimated the impact on regional income of marketing rice using the RO&S price forecasts. For example, if one-third of the rice production in the five Southern rice-producing states—Arkansas, Texas, Louisiana, Mississippi, and Missouri—had been sold based on the RO&S price forecasts, the net annual income of rice producers in the region would have increased $5.8 million. This is based on the average production in the South over the five marketing years from 1979 through 1983. The increased income would benefit not only the rice producers but also business in general, because most of the additional income of rice producers would be spent. Assuming an income multiplier of 2.0, the total annual income in the region would have increased some $12.0 million, if one-third of the rice production in the South had been marketed based on the RO&S price forecasts.

Footnotes

[1]The naive model is a random walk which says the best price forecast for the future is simply the current price. Support for the random walk model is found in the conclusions of financial economists who have shown that stock prices are essentially a random walk (Fama [4]). Labys and Granger [5] found that cash, as well as futures, commodity prices are well approximated by a random walk also.

[2]The weights were estimated from a regression with the dependent variable being the PRBF and the independent variables being the average price received by farmers for the first and second halves of the marketing year. The sum of the regression coefficients was constrained to equal one, because the weighting factors in a weighted average sum to one. The constrained coefficients from the regression analysis represent the weights.

[3]No test is available for determining if the absolute errors are statistically different.

References

[1] Ashley, R., C. W. J. Granger, and R. Schmalensee. "Advertising and Aggregate Consumption: An Analysis of Causality," *Econometrica,* 48:1149-67, 1980.

[2] Board of Governors of the Federal Reserve System. *Federal Reserve Bulletin.* Washington, D.C., various monthly issues from 1972-83.

[3] Crowder, R. T. "Statistical vs. Judgmental and Audience Considerations in the Formulation and Use of Econometric Models," *Am. J. Agr. Econ.,* 54:779-83, 1972.

[4] Fama, E. F. "Efficient Capital Markets: A Review of Theory and Empirical Work," *J. of Fin.,* 25:383-417, 1970.

[5] Labys, Walter C., and C. W. J. Granger. *Speculation, Hedging and Commodity Price Forecasts.* Lexington, Massachusetts: Heath Lexington Books, 1970.

[6] Mendenhall, William. *Introduction to Probability and Statistics.* 5th ed. North Scituate, Massachusetts: Duxbury Press, 1979.

[7] Thompson, F. L., and R. J. Foote. *Agricultural Prices.* New York: McGraw-Hill Book Company, 1953.

[8] Tomek, William G., and Roger W. Gray. "Temporal Relationships Among Prices on Commodity Futures Markets: Their Allocative and Stabilizing Roles," *Am. J. Agr. Econ.,* 52:372-80, 1970.

(continued on page 22)

GRADUATE BUSINESS ECONOMICS PROGRAMS BY REGION IN THE UNITED STATES

*Saul Z. Barr and Gary F. Young**

Introduction

While several studies have recently been conducted on the undergraduate economics curriculum,[1] one in particular investigated the business economics major.[2] This study by Siegfried and Wilkinson resulted from a survey of 78 four-year colleges and universities. The questionnaire developed by Siegfried and Wilkinson was adapted for the present study in order to ascertain whether or not the same diversity of programs existed in graduate business economics programs.

The study was undertaken to extend Siegfried and Wilkinson's findings on undergraduate programs to graduate programs. Rather than investigating the business economics major as Siegfried and Wilkinson did, the authors chose to investigate advanced degree programs in economics, with the assumption that graduate training in economics can prepare a student for a career in business. With the encouragement and help of the Joint Council on Economic Education and the Southern Economic Association, extensive data were developed on the students, faculty, and nature of graduate economics programs by specific regions in the United States. This information, it was hoped, could give important information to prospective employees and employers of economists in business and industry.

In August 1982,[3] the 240 colleges and universities granting advanced degrees in economics, according to *Peterson's Guide to Graduate Study*, were mailed an eight-page questionnaire on the structure of their departments, description of advanced degree programs, course work for advanced degree, business career related aspects of their curriculum, student information, and faculty information. For the purposes of this study, 101 usable questionnaires were returned. Data were then compiled and analyzed on a regional basis.

For purposes of this study, the United States was divided into six regions. The Northeast region included Delaware, New Jersey, Maine, Connecticut, New York, Pennsylvania, Rhode Island, Massachusetts, New Hampshire, and Vermont. The Southeast region included Maryland, North Carolina, Florida, Alabama, Georgia, South Carolina, Virginia, West Virginia, and Mississippi. The Midwest region included Illinois, Indiana, Michigan, Iowa, and Ohio. The Mid-South region included Kentucky, Texas, Tennessee, Missouri, Oklahoma, Louisiana, and Arkansas. The Northwest region included Idaho, Montana, North Dakota, South Dakota, Nebraska, Oregon, Washington, Colorado, and Wyoming. The Southwest region included California, Nevada, Kansas, New Mexico, and Utah. The 101 usable returned questionnaires were divided by regions as follows: 17 from the Northeast, 19 from the Southeast, 18 from the Midwest, 23 from the Mid-South, 8 from the Northwest, and 16 from the Southwest. No responses came from either Alaska or Hawaii.

The Graduate Degree

Two categories of advanced degrees in economics were considered, the Master's and the doctorate. Table 1 presents the number of degrees awarded by type and region.

Table 1

DEGREES AWARDED BY TYPE AND REGION

Region	Total Number	Master's (Only)	Percent	Doctorate	Percent
Northeast	17	6	35.3	11	64.7
Southeast	19	6	31.6	13	68.4
Midwest	18	8	44.4	10	55.6
Mid-South	23	14	60.9	9	39.1
Northwest	8	6	75.0	2	25.0
Southwest	16	9	56.3	7	43.8
Total	101	49	48.5	52	51.5

Only the Master's degree in economics was offered by 49 (48.5 percent) of the universities and colleges, while 52 (51.5 percent) offered the doctorate in economics as well. The Northeast, Southeast, and Midwest regions had

**The authors are Associate Professors of Economics, The University of Tennessee at Martin, Martin, Tennessee. Gary Young is also Holder of the Tom E. Hendrix Chair of Excellence in Free Enterprise.* *Thanks go to Jack Sterrett for contributing to an earlier version of this article.*

substantially more doctoral with Master's than Master's only programs, while the Mid-South, Northwest, and Southwest regions reported only 2 (25 percent) of their programs with both Master's and doctoral degrees. The Southeast region had the highest percentage of Master's with doctoral programs, with 13 of 19 reported or 68.5 percent.

Business Economics Programs

Courses in economics were offered in business departments (70 percent of the respondents) and in economics departments (56 percent of the respondents). These percentages for both departments totaled more than 100 percent since 26 percent offered courses in both.

Few programs were designed specifically in business economics or provided specific training for careers in business and industry. Of the 101 respondents, 81 percent offered the M.A. in economics, and 45 percent offered the Ph.D. in economics; only 3 percent offered a specific M.A. in business economics, 5 percent a specific M.S. in business economics, and 26 percent a specific M.B.A. in economics. Five percent of the respondents offered a specific D.B.A. in economics.

Courses related to business careers were most often not required in graduate programs. From a list of over 50 possible courses reported as required, only 1 percent required industrial organization, and only 3 percent required business forecasting; while basic theoretical graduate micro and macroeconomics and econometrics were generally required. Only 2 percent of all respondents reported offering internships in business for graduate economics students. Only one school required an internship with a business firm at the doctoral level. A much higher percentage (32 percent) offered comprehensive seminars in economics and business (see Table 2).

Table 2

REQUIRED COURSES IN GRADUATE ECONOMICS
(N=100)

Required Graduate Courses	Master's Percent	Doctoral Percent
Empirical Method in Economics	17	7
Econometrics	54	34
Mathematical Analysis for Economics	26	30
Graduate Macro I	79	45
Graduate Micro I	66	34
Graduate Macro II	6	32
Graduate Micro II	9	32
State and Federal Finance	1	0
Federal Finance	1	0
International Trade	3	1
Monetary Theory	6	3
Labor Economics	2	0
Industry and Government	3	0
Topics in Public Policy Toward Industry	0	0
Econometrics II	0	2
Business and Economic Forecasting	3	0
Research Methodology	7	0
Statistics	8	5
Operations Research	1	0
Industrial Organization	1	0
Strategic Planning	1	0
Financial Accounting	1	0

Note: Percentages are rounded to the nearest whole number.

The results seemed surprising since 21 percent of the respondents said that between 76-100 percent of their Master's students sought jobs in business and industry, while another 37.5 percent of the respondents said that 51-75 percent of their Master's students sought jobs in business and industry (see Table 3). In general, the larger schools (over 10,000 students) indicated their students sought jobs in business and industry, while the smaller schools (less than 10,000 students) reported their students sought jobs in government or other non-business areas. Doctoral students, however, were reported as having less of a desire to seek jobs in business and industry (see Table 4). None reported that between 76-100 percent of their doctoral students sought jobs in business and industry, and only 15 percent of the respondents said between 51-75 percent of their students sought jobs in business. Seventy-five percent of the schools reported that 25 percent or less of their doctoral students sought jobs in business or industry.

Table 3

PERCENTAGE BY REGION OF MASTER'S DEGREE STUDENTS IN ECONOMICS OR BUSINESS ECONOMICS WHO SOUGHT JOBS IN BUSINESS OR INDUSTRY
(N=101)

	Percent					
Region	0-5	6-10	11-25	26-50	51-75	76-100
Total All Schools	2	1	12.5	26	37.5	21
Northeast	8	0	8.0	0	46.0	38
Southeast	0	11	22.0	11	44.0	11
Midwest	0	0	15.0	31	31.0	23
Mid-South	0	0	27.0	27	18.0	27
Northwest	0	25	0.0	50	25.0	0
Southwest	14	0	0.0	43	43.0	0

Note: These percentages were reported by graduate coordinators or department chairpersons in economics or business economics departments.

Table 4

PERCENTAGES BY REGION OF DOCTORAL DEGREE STUDENTS IN ECONOMICS OR BUSINESS ECONOMICS WHO SOUGHT JOBS IN BUSINESS OR INDUSTRY BY REGION
(N=52)

	Percent					
Region	0-5	6-10	11-25	26-50	51-75	76-100
Total All Schools	15	30	30	10	15	0
Northeast	14	14	43	0	29	0
Southeast	17	33	33	0	17	0
Midwest	17	50	0	33	0	0
Mid-South	40	40	20	0	0	0
Northwest	0	100	0	0	0	0
Southwest	25	25	50	0	0	0

Note: These percentages were reported by graduate coordinators or department chairpersons in economics or business economics departments.

The Administrative Location of Graduate Programs in Economics

Information on administrative locations of graduate economics programs is presented in Table 5. According to this survey, 13 (76.5 percent) of the graduate degrees in

the Northeast were offered in the economics department of the liberal arts school. The programs were divided more evenly in the Southeast with 8 (42.1 percent) located in the liberal arts school and 42.1 percent located in the business school; 3 (15.8 percent) were located in other areas. The Midwest had the majority of its programs, 10 or 55.6 percent, located in the economics department of the liberal arts school. It was interesting to note that the Mid-South was the only region with the majority of its schools, 13 or 56.5 percent, offering graduate economics programs in the economics department of the school of business. The programs were divided rather equally between the business schools, liberal arts schools, and others in the Northwest, with 3 (37.5 percent) and 2 (25.0 percent), respectively. In the Southwest the majority of the programs (9 or 56.3 percent) were located in the economics department of the liberal arts school. Across all regions, 49 (48.5 percent) of the graduate degree programs were located in the economics department of the liberal arts school, 38 (37.6 percent) were located in the economics department of the school of business, and 14 (13.9 percent) were located in other departments and/or schools.

Table 5

ADMINISTRATIVE LOCATIONS OF GRADUATE ECONOMICS AND BUSINESS ECONOMICS PROGRAMS BY REGION

Region	School of Business Economics Department		Liberal Arts School Economics Department		Other Departments	
	Number	Percent	Number	Percent	Number	Percent
Northeast	3	17.6	13	76.5	1	5.9
Southeast	8	42.1	8	42.1	3	15.8
Midwest	6	33.3	10	55.6	2	11.1
Mid-South	13	56.5	6	26.1	4	17.3
Northwest	3	37.5	3	37.5	2	25.0
Southwest	5	31.3	9	56.3	2	12.5
Total	38	37.6	49	48.5	14	13.9

Credit Hour Requirements For Graduate Major In Economics Or Business Economics

Master's Programs

The percentage distribution of the graduate semester credit hours required for the Master's degree is presented in Table 6 by region and school (e.g., school of business, liberal arts school, and other) for all institutions. By categorizing all schools, one can see that 42 percent of the schools required between 20 and 30 graduate semester credit hours, and 32 percent required between 31 and 40; 20 percent required over 40, and only 6 percent required less than 20 semester credit hours. (Note: All credit hours called semester credit hours are actual semester hours or the equivalent.)

The distribution within regions was interesting. The fourteen universities in the Northeast region reported that they require 40 semester hours or less, with 72 percent of them requiring between 20 and 30 semester hours. The Southeast region's distribution was very similar to that of the Northeast in that 64 percent of the

Table 6

REQUIRED CREDIT HOURS FOR MASTER'S IN ECONOMICS OR BUSINESS ECONOMICS BY REGION AND ADMINISTRATIVE LOCATION
(In Percent)

Region	Number Of Schools	Number of Hours				Mean
		0-20	20-30	30-40	Over 40	
Total	101	6	42	32	20	32.7
School of Business	38	0	39	36	25	34.5
Liberal Arts School	49	7	51	27	15	32.4
Other School Departments	14	8	38	38	16	34.4
Northeast	17	7	72	21	0	30.1
Southeast	19	5	64	26	5	30.2
Midwest	18	0	40	33	27	33.2
Mid-South	23	11	26	37	26	32.5
Northwest	8	12	12	25	50	39.5
Southwest	16	6	31	44	19	34.3

Note: Credit hours were measured as semester credit hours in graduate courses. Five quarters hours were converted to 3 semester hours. Three trimester credit hours were converted to 2 semester credit hours.

schools require 20 to 30 semester hours of credit. The remaining four regions differed from the first two due to the fact that in all of them, over 50 percent of the schools require over 30 semester credit hours. Fifty percent of the schools in the Northwest require over 40 semester credit hours.

Sixty-one percent of the Master's programs with a major in economics in its school of business require more than 30 semester graduate credit hours, while 38 percent of all schools with a major in economics require 30 semester graduate credit hours or less.

The mean minimum number of credit hours required for the Master's degree was 32.7. The mean for the Master's in the school of business was 34.5, while it was 32.4 for Master's programs in the liberal arts school. The mean minimum number of hours was relatively even between regions except for the Northwest at 39.5.

Doctoral Programs

The distribution of graduate credit hours required for the doctoral program in economics for all schools and by school within the university is shown by region in Table 7. Thirty-three percent of all schools required a minimum of 41 to 50 graduate semester hours, while 50 percent of them required over 50 semester hours. Forty semester hours or less were required by only 17 percent of the universities. (Note: All credit hours called semester credit hours are actual semester hours or the equivalent.)

Forty-one percent of the universities with doctoral programs in the economics department of the school of business required over 50 semester graduate hours as a minimum, and 41 percent required between 41 and 50 graduate semester hours. Seventeen percent of the universities required less than 41 graduate semester hours. Less than 41 semester hours were required by 18 percent of the programs in the school of business. Of the programs in the liberal arts school, 60 percent required in excess of 50 graduate semester hours, while 28 percent required

Table 7

REQUIRED CREDIT HOURS FOR DOCTORATE IN ECONOMICS OR BUSINESS ECONOMICS BY REGION AND ADMINISTRATIVE LOCATION
(In Percent)

Region	Number Of Schools	Number of Credit Hours					
		0-20	21-30	31-40	41-50	Over 50	Mean
Total	52	3	6	8	33	50	54.8
School of Business	17	6	0	12	41	41	
Liberal Arts School	29	3	6	3	28	60	52.0
Other School Departments	6	0	17	17	33	33	54.0
Northeast	11	9	18	18	18	37	46.0
Southeast	13	8	0	8	53	31	48.9
Midwest	10	0	0	10	20	70	62.0
Mid-South	9	0	11	0	33	56	55.8
Northwest	2	0	0	0	50	50	60.0
Southwest	7	0	0	0	29	71	65.5

Note: Credit hours were measured as semester credit hours in graduate courses. Five quarter hours were converted to 3 semester hours. Three trimester credit hours were converted to 2 semester credit hours.

between 41 or 50 semester hours; only 21 percent required less than 41 semester hours.

Number Of Students And Degrees Awarded

According to this survey, there was an annual average of 289 doctorates in economics and 745 Master's in economics awarded between 1978 and 1982. The distribution of doctorates by regions was relatively even, ranging from 12 percent in the Northwest to 21 percent in the Midwest.

The distribution of the number of Master's degrees awarded was not as balanced as for doctorates. As one can see from Table 8, the Northwest only awarded 7 percent of the total Master's degrees reported, while the Midwest awarded 23 percent of the total.

Faculty Tenure

There was an average of 13.5 full-time equivalent (FTE-refers to teaching three or more courses per semester or equivalent) tenured faculty and 5.5 FTE non-tenured faculty in the sample institutions. Seventy-one percent of the faculty in the graduate programs had tenure. This

Table 8

AVERAGE NUMBER OF DOCTORAL AND MASTER'S DEGREE GRADUATES IN ECONOMICS PER YEAR BY REGION FROM 1978-1982

Region	Doctorate	Percent of Total	Master's	Percent of Total
Total	289	—	745	—
Northeast	43	15	148	20
Southeast	48	17	125	17
Midwest	60	21	168	23
Mid-South	47	16	137	18
Northwest	35	12	55	7
Southwest	56	19	112	15

Note: These totals were calculated from responses of chairpersons in the 101 responding institutions offering graduate degrees in economics and business economics.

appeared to be much higher than the 58 percent in the undergraduate sample that Siegfried and Wilkinson (1983) found. The regions appeared to be well balanced in the ratio of tenured to non-tenured faculty, with the exception of the Southeast. Only 63.3 percent of the faculty in the Southeast were tenured, while all other regions had over 71 percent tenured (see Table 9).

Summary And Conclusions

This study was not conclusive in the trends mentioned, since there was only a 42 percent usable response rate of the population of known graduate programs in economics nationwide. The authors felt, however, that the findings would be of interest to the profession.

Among the respondents, more doctoral programs were found in the Northeast, Southeast, and Midwest regions than in either the Mid-South, Northwest, or Southwest regions. Graduate programs in economics were spread between mainly liberal arts schools and schools of business, with business school economics departments dominating in the Mid-South. Liberal arts economics departments dominated in the other regions except the Southeast which had an equal number in each. Graduate degrees, Master's only, dominated in the Mid-South, Northwest, and Southwest regions, while doctoral programs with a Master's program

Table 9

DISTRIBUTION OF TENURED AND NON-TENURED FACULTY

Region	Tenured	Average Tenured Per School	Percent Of Total	Non-Tenured	Average Non-Tenured Per School	Non-Tenured As Percent Of Tenured
Total	1,283	13.5	71.2	520	5.50	28.8
Northeast	237	14.8	74.8	80	5.00	25.2
Southeast	239	12.6	63.3	139	7.30	36.7
Midwest	288	16.9	72.8	108	6.35	27.2
Mid-South	236	11.2	71.0	96	4.60	29.0
Northwest	89	11.2	76.8	27	3.40	23.2
Southwest	194	12.9	73.5	70	4.70	26.5

Note: Based on faculty distribution reports of 101 chairpersons of economics departments at schools that offer a graduate degree in economics or business economics.

dominated in the other three regions. Master's degree programs in economics, as well as doctoral programs in economics, were found to differ widely. Required semester hours varied greatly.

Approximately 289 doctorates and 745 Master's degrees were granted, on the average, over the past four years (1978/79-1982/83) in the sample. Another interesting item from the sample was that 71 percent of all faculty in graduate economics programs were tenured.

Finally, little attention was given to preparing doctoral graduate economics students in business, while much more attention was given to preparing Master's level students for business. A few schools required courses relating to business economics, and even fewer had specific graduate degree programs in business economics. These findings were surprising, especially at the Master's level where over 58 percent of the students were reported as saying that they sought jobs in business or industry.

Footnotes

[1]John J. Siegfried et al., "The Structure of the Introductory Economics Course in U.S. Colleges." Paper presented at the Atlantic Economic Society Meeting, October 10, 1982; J. A. Dopp & B. R. Dalgaard, "A Survey of the Content and Structure of the Economic Principles Course." Paper presented at the annual meeting of the National Association of Affiliated Economic Education Directors, New Orleans, LA, October 6-9, 1977; John J. Siegfried and James T. Wilkinson, "The Business Economics Major," unpublished manuscript, Vanderbilt University, April 1982; M. Jane Barr Sweeney and John J. Siegfried et al., "The Structure of the Introductory Economics Course in U.S. Colleges," *Working Papers in Economics Education* (New York: Joint Council on Economic Education, 1982); Barr & Sterrett, "A Comparative Study of Junior and Senior College Economic Programs in the Southeast," *Journal of Economic Education*, 12, 2, Summer, 1981.

[2]John J. Siegfried and James T. Wilkinson, "The Business Economics Major in the United States," *Business Economics*, Vol. XVIII, No. 1, January, 1983.

[3]*Peterson's Guide to Graduate Study* (Princeton, N.J.: Peterson Publishing Company, 1981).

(continued from page 17)

[9] U.S. Department of Agriculture, Statistical Reporting Service. *Agricultural Prices*. Washington, D.C.

[10] U.S. Department of Agriculture, Economic Research Service. *Rice Outlook and Situation*. Washington, D.C., September and March issues for the marketing years from 1972-83.

[11] Wailes, Eric J., Shelby H. Holder, and William P. Welch. *An Economic Analysis of On-Farm Rice Drying and Storage Facilities*, Agricultural Experiment Station Bulletin, 875, University of Arkansas, Fayetteville.

DISCOVERING AND MANAGING CREATIVITY IN THE FIRM

*John M. Patrick, J. Wayne Patterson, and Thomas W. Zimmerer**

Introduction

The automobile, airplane, atomic bomb, and computer were first created in someone's mind before they made the marketplace. The same is also true of the lever, pulley, wheel, or constructive uses of fire.

Creativity has been under serious study since the 1950s. The importance of creative ideas to today's organizations cannot be denied. Companies must constantly be on the lookout for ways of modifying and improving their products and services to remain competitive. Organizations acknowledge this need as evidenced by the fact that over half of the five hundred largest corporations in the United States have some type of formal creativity training (Haefele, 1962; Howard, 1980; Turner, 1979; Naisbitt, 1984). The creative person inside a firm functions as an entrepreneur. The term "intrapreneur" has been coined to designate this intrafirm creative individual:

> The main idea is to reverse the creative inertia in many large corporations by developing the inside entrepreneur. . . . The company that can learn how to get people to actualize those ideas will have tapped a real gold mine. Both parties profit: the intrapreneur gets the company's good name, contacts, resources, and money, while the company keeps a creative person who may otherwise leave to start a new business and gains the potential to develop a profitable new in-house business (Naisbitt, 1984).

The dictionary defines to create as "to bring into existence; to invest with new form, office, or rank; to produce or bring about a course of action or behavior; to produce through imaginative skill." There are at least two dimensions to creativity: innovation and adaptation. Innovation is "doing things differently"; adaptation is "doing things better" (Keller & Holland, 1983). Peter Drucker, tying creativity to innovation, has said:

> Innovation is not a term for the scientist or technician. It is the term of the businessman. For innovation means the creation of new value and new satisfaction for the customers. Organizations, therefore, measure innovation not by the scientific or technological importance but by what they contribute to market and consumer (Drucker, 1982).

This article had two objectives: First, to present methods which have been developed to identify the creative individual, and second, to present some practical considerations to manage creative abilities in these individuals.

Identifying the Creative Individual

There are many theoretical concepts related to identifying creativity in people. How does a creative person act or react versus a non-creative person? What personal characteristics or traits differentiate these individuals? Vessels (1982) has separated these related concepts into six areas: openness, problem recognition and clarification, scanning inconsistent cognition, imaginative insight, evaluation elaboration, and communication. Each of these are further broken down into different constructs. Table 1 presents two of these constructs—descriptive terms and motivation.

Table 1
Partial List of Concepts Related to Creativity

CONCEPT	DESCRIPTIVE TERM	MOTIVATION
Openness	Curiosity, exploration, adventureness, inquisitiveness	Arousal, ego needs, positive incentive
Problem Recognition and Clarification	Defining the problem, sensitivity to deficiencies, aesthetic sensitivity, analysis, comprehension, understanding	Excitement, enthusiasm
Scanning Inconsistent Cognitions	Review, examination, study, memorization, saturation	Feedback, pattern recognition
Imaginative Insight	Serendipity, eureka, intuition, inspiration	Ecstasy, relaxation
Evaluation Elaboration	Relativity testing, hypothesis testing, critical thinking, judgment	Self-evaluation, actualization
Communication	Categorization, creative imagination and expression, invention, innovation	Helpfulness, clarity

Source: Adapted from G. Vessels, "The Creative Process: An Open Systems Conceptualization," *Journal of Creative Behavior*, 16(3): 184, 1982.

**The authors are, respectively, doctoral student in Management, Associate Professor of Management, and Professor of Management, Clemson University, Clemson, South Carolina.*

Eric Hoffer, the noted American philosopher, has written that two major factors are conducive to creativity: individual factors, consisting of talent/natural endowment, expertise/education, self-confidence, divergent production, ability to work with any type of technique, belief in the possibility of sudden drastic change, leisure, self-denial/persistence/patience, playful mood, and inner tension; and societal factors, consisting of individual autonomy, minimal economic well-being, few opportunities for "action," absence of mass movement, reward for merit, communal discipline, and urban setting (Petrosko, 1983).

Identification of creative individuals falls into two major areas: (1) Testing and (2) Trait Identification.

Testing for Creativity

By far the majority of the literature deals with testing for creativity. Obviously no single test is designed to cover all the related concepts or is suited to pick out the one best trait/characteristic of creative individuals. There are two major types of tests: personality tests and divergent thinking tests. Personality tests are based on the assumption that there are basic personality characteristics that creative people have in common. Divergent thinking tests measure flexibility of ideas, originality of response, sensitivity to problems, fluency of ideas, remote association, analysis, and synthesis.

Personality Tests. Haefele (1962) reports on several investigations into personality trait/profile tests of creative individuals. A highly concentrated drive in pursuing their work and introvertive behavior patterns were common attributes discovered.

Wolff (1979) reported on current activities in this area. Present interest is in developing and validating questionnaires to identify creative thinkers or persons with past creative interests in the hopes of predicting future creative abilities.

Divergent Thinking Tests. These tests range from the Rorschach Inkblot Test and Thematic Apperception Test (TAT) to the AC Sparkplug Test. The inkblots require the subject to tell what they think the inkblots look like, and the TAT requires them to make up a story about the picture they are shown. The hypothesis is that creativity of the subjects would be reflected in their unusual responses. This study did not result in statistically significant evidence but did reinforce the idea that creativity is a very sophisticated concept and difficult to measure (Haefele, 1962). Bruen et al. (1984) used visual, aural, and verbal stimuli on their test of culturally deprived preteens. They used drawing completion, unusual uses of everyday items, a sense of vocal stimuli, improving a toy, and "what would happen if . . .?" type questions.

The AC Sparkplug Test developed by General Motors measures creativity by counting the number of unusual ideas a subject can originate for a given situation in a specified period of time. This test has been validated in several studies and has been used in other organizations as well (Simberg, 1964, pp. 28-30).

Guilford designed a test to measure factors such as analysis, originality, flexibility, fluency, redefinition, and synthesis. For example, one fluency test requires subject to make a list of things that are impossible. Originality is tested by uniqueness of plot titles for stories and uncommon responses to word associations (Haefele, 1962, pp. 198-202).

Although tests can be helpful in spotting creativity, they are not yet reliable enough to be used as the sole means for judging a person's creativity. If a large number of people need to be chosen and only a few of them need to be creative, a testing program may be beneficial. However, if only a few need to be chosen for a project and all need to be very creative, then a testing program would probably not improve the chances of picking the most creative individuals (Steiner, 1965, p. 11).

Trait Identification

One technique for identifying creative individuals requires managers to determine whether or not the individual in the organization has traits which are associated with creativity. Have they been creative in the past? What patents do they hold? Do they have creative hobbies such as painting, music, ceramics, writing, or even reading? These are basically mental (imaginative) skills as opposed to physical pastimes. Care should be taken because some sports like fishing may involve long periods of mental activity only. The easiest way to determine this is from resumes, employment applications, or simply asking them.

Alfred E. Brown, Director of Scientific Affairs for Celanese Corporation, gives the following as traits of the creative individual: intellectually questioning, open-minded, unorthodox, problem-solvers, and highly motivated. The creative person is constantly asking for more information; he is eager to learn as much as he can about his or related fields. Open-mindedness means that the creative person does not make snap decisions; he prefers to hear all the information before making a decision. The creative individual has been characterized as unorthodox probably due to his questioning attitude and his flexibility of thinking. A goal orientation makes the creative individual a problem-solver, because he does not get caught up in the methodology. Once a creative person spots an objective he heads toward it, not caring if he is following a conventional path or not. Due to a high level of motivation, a creative individual tends to get very engrossed in his work. He is so challenged and interested in his work that he seems to forget everything else. In addition, Mr. Brown says that a creative individual can almost always size up a problem accurately and can usually spot needs before other people do (Wolff, 1979).

Other traits of a creative person are independence, a preference for things and ideas to people, resourcefulness, adaptability, stubbornness, and complexity. The traits of independence and a preference for things and ideas are probably responsible for the creative individual's characterization as an introvert. A final trait that was found to be very common among creative people was a sense of humor (Howard, 1980).

There are several problems with using this method to identify creativity in an individual. First, it is extremely difficult for a manager to accurately determine what a person's traits really are. In addition, it is impossible to know how many or which traits are the strongest indicators of creativity. There is also the fact that so many traits have been identified with creativity that at least one of these traits would have to be found in almost every person. Secondly, this method is h ghly subjective and dependent upon the manager's opinion. Keller and Holland (1983) used peer nomination as a means to negate this problem in their research on creativity in R & D organizations.

Managing the Creative Individual

Once the creative or potentially creative persons have been identified, the major task for the manager, namely encouraging and directing their creativity, lies ahead. Often creative people "march to a different drummer." It is the task of manager to harmonize the creative person with co-workers and the goals of the firm.

The Organizational Environment That Fosters Creativity

The manager must first realize that there are certain inhibiting factors to creativity. These factors fall into the general catchall category of bureaucracy. A bureaucratic organizations's orientation is conservative and conformist, standing directly in the way of creativity (Maas, 1981). Creative people should not be bogged down with a lot of unnecessary rules and regulations. They should be given as much freedom as possible within the framework that is necessary for accomplishing the firm's objectives (Wolff, 1979; Blake, 1978). Several researchers refer to psychic freedom, leisure time, and openness as being necessary for creativity (Young, 1981; Vessels, 1982; Petrosko, 1983). These concepts are anathema to some bureaucratic organizations.

It is possible to develop an organizational climate that encourages creativity. The first step in developing a climate which fosters creativity is making management and employees aware of the importance of creative ideas to the organization. Communication seems to be the key. Employees must know that the organization is really interested in any ideas they might have for changes. One of the biggest problems with the organizational environment is that management says that they want to hear employee suggestions, but management's attitude and actions suggest otherwise. When a suggestion is made, management either ignores it or communicates to the employee that he should not "rock the boat." Sometimes employees who suggest changes are identified as troublemakers. If the organization is really dedicated to aiding creativity, a formal system for review of suggestions should be established. This system must provide for the objective review of ideas, for prompt feedback to the originator, and for fast implementation of the idea if it is accepted (Simberg, 1964).

Good relationships between people in a department are another aid to creativity. It is important for a department to work as a team, so cooperation is essential. Management should make sure that everyone knows where they "fit" in the organization. The best way to accomplish this objective is to establish good communications with employees and let them know about department plans, progress, and changes. It is important to keep employees informed as much as possible about what is happening in the organization so they can work toward company goals. A good Management by Objectives (MBO) program will enhance creativity (Simberg, 1964; Odiorne, 1979; Keller & Holland, 1983).

Another positive factor in the creative environment is the encouragement of individual creativity. This means that the organization should allow employees to attempt to solve their own problems first before they bring anyone else into the picture. The organization should not be overprotective, and, if possible, the organization should allow the employee "freedom to fail." This freedom should only be permitted if the employee can learn from his mistakes and if these mistakes will not significantly harm the individual or the company. The company that does not allow its employees to solve their problems will stifle the creative atmosphere, for employees will have no motivation to try out new ideas (Simberg, 1964; Young, 1981).

It is important to rotate individuals through various departments, both to expose them to creative ideas and to give the people in the departments access to their creativity. One often overlooked area is the customer complaint department. A good example of this practice is shown in Smith-Corona's development of their Coronamatic Cartridge System for typewriters. The inventor of this system came up with the idea after he read of customers' dislikes of handling messy typewriter ribbon spools. He realized that as long as the ribbon was in the package it was not messy. The solution was to leave the ribbon in the package permanently. The idea for the ribbon system was the inventor's, but the inspiration came from consumers (Abend, 1979).

Some organizations are trying new approaches for developing an organizational climate which allows creativity to flourish. McDonald's is using relaxation techniques in an attempt to foster creative thinking. They have installed waterbeds in soundproof rooms for their executives to use when they need to relax and think. Prudential Insurance Company has found that physically active employees think better, so they built physical fitness centers for their employees' use. Prudential has reported that the quantity and quality of employees' work has improved with their use of the centers (Wheeler, 1979).

Reward Systems that Encourage Creativity

The reward systems used to recognize creativity are so vital to the firm that they require full attention of all managers. The major drawback of most present systems is the fact that increased *supervisory* responsibility is the most often used form of recognition. Researchers report

that increased supervisory responsibility stifles creativity, possibly because it seems to encourage power struggles (Maas, 1981).

Employees must know that they will receive some benefit, or they will not be willing to expend the effort to be creative. Recognition can be as little as a public announcement of an idea to the department, a write-up in the company newsletter, or a certificate (Simberg, 1964).

An awards program can play a major role in encouraging creativity. IBM has a successful awards program, which was established in the late fifties. It recognizes individual achievements in both technical and non-technical areas. The awards are independent of regular compensation, and they are given for achievements "above and beyond the call of duty." When the achievement is due to the work of a group, each person's specific contribution is determined. Top management takes an active role in the awards program by reviewing and presenting the awards. This involvement emphasizes to employees how important their work is to the company. There are five award categories in the research division alone (Turner, 1979). These are summarized in Table 2.

Table 2
IBM's Research Awards

AWARD	AMOUNT (Range)	NATURE of the AWARD
Outstanding Innovation	$ 2,500 $10,000	Scientific achievement
Research Division Outstanding Contribution	$ 2,500 $10,000	Non-technical achievement, scientific and technological implementation that had a major impact on R&D programs
Corporate	$10,000 No Maximum	Best of the Outstanding Innovation Award winners
Invention Achievement	$ 2,400	Best invention
Research Division	$ 75 $ 1,500	Successful implementation of earlier ideas

In addition to monetary awards, there is a great deal of publicity and recognition attached to the awards program. The publicity is very important. If management has recognized the wrong person or omitted someone, it hears about it. The recipient gets peer recognition when his achievement is announced publicly. IBM's Outstanding Innovation Awards and the Research Division Outstanding Contribution Awards are presented by the Vice-President and Director of Research at a presentation luncheon attended by the recipients' managers. The employee is told of his award in advance so that he can be prepared to tell the group about his achievement. The recipient of a major award is given a plaque signed by the Chairman of the Board and the Director of Research. For the first award of each type, the recipient is given distinctive jewelry. A bulletin board announcement is made, and an article appears in the division's newsmagazine. Photographs of the employees receiving awards are displayed for a year in the Research Center along with descriptions of their accomplishments. Finally, a photograph of major award recipients is displayed in the Research Division's Hall of Fame for varying lengths of time.

Certain annual events are also used to honor award recipients. Major award winners in the division have a dinner held for them at an elegant restaurant; spouses are invited. At the dinner each person's accomplishment is recognized in a short talk given by the Director of Research. A three-day event is held in New York City each year to recognize major outstanding award recipients. It is hosted by top management (Turner, 1979).

Developing Creativity in the Individual

Once creative individuals have been discovered and a creative environment has been created, organizations have many means at their disposal to foster or nurture these creative people. Some are self-evident: continuing education, attending technical meetings, refresher courses, and seminars. Firms should subsidize advanced degree work and business courses in order to encourage continuing education (Merrifield, 1979). The presence of technology-oriented universities nearby encourages interaction with employees and the latest information and equipment available. Grants to institutions encourage this interaction (Haefele, 1962).

The first formal technique for enhancing creativity was brainstorming. Alex Osborn, an advertising executive, devised this method to facilitate idea generation at his agency (Howard, 1980). The method of brainstorming is simple to use. The problem should be stated simply and specifically. All that is required is a chairman to make sure that the rules are followed, a recorder for listing ideas, and the individuals who make up the group. There are three rules for brainstorming:

(1) Criticism of any idea is forbidden.
(2) Members are encouraged to add or modify (piggy-back) any idea given by another person.
(3) As many ideas as possible are sought; the more unusual the idea, the better (Simberg, 1964).

Brainstorming is not suitable for solving complicated problems. Group-based methods are hard to use in organizations due to internal politics, wrong mix of group members, and unskilled group chairmen (Hermone, 1979). Although a group can produce more ideas than an individual, the same number of individuals can produce more ideas than they could in a group. Also, "better" ideas are produced by these individuals (Haefele, 1962).

Synectics is another creative problem-solving technique. It was developed when a researcher noticed that whenever an idea emerged from a group, it was always expressed as an analogy. He developed a group problem-solving technique which started with background information, followed by a reduction of the problem to the barest components, followed by a search for an analogy. There are four types of analogy that can be used in this process: personal, direct, symbolic, or fantasy. A personal analogy involves identification of oneself with an object or process in order to gain a new perspective. A direct analogy requires a direct comparison of relevant facts in different disciplines. A

symbolic analogy involves using an analogy that is technically inaccurate. The fantasy analogy ignores all natural and physical laws—anything is possible. Synectics has proven to be a good method for idea generation. Pringle's potato chips resulted from one idea originated in a synectics session (Hermone, 1979; Howard, 1980).

Direct association is another type of idea generation technique. Use of this technique involves searching printed materials such as catalogs, textbooks, and magazines to see how similar problems were solved in the past. These direct associations are supposed to stimulate new ideas for solutions to current problems (Hermone, 1979).

Checklists are a special type of direct association method. Checklists are lists of words that are applied to a problem in the hope of finding a solution. For example, consider Osborn's adapt, modify, magnify, minimize, substitute, rearrange, reverse, combine (Haefele, 1962).

Morphological analysis is a very sophisticated idea generation method suitable for engineers and scientists. In this method the important variables of a problem are placed in a matrix, and the interrelationships of the variables are inspected systematically. Examination of these variable combinations can lead to perception of relationships that were not recognized before (Blake, 1978).

Attribute listing is a technique where the particular characteristics of a product being studied are listed. Then a step-by-step modification of these attributes is made to try to find a better product (Simberg, 1964).

Bionics is a technique that compares living systems to technical problems. Bell Laboratories is using this technique to create a filter that passes certain phenomena and suppresses others. The biological system they are using is a frog's eye (Blake, 1978).

Commercial Creative Thinking Programs

Rose and Lin (1984) analyzed several long-term creative programs for effectiveness. Among these were Osborn-Parnes' Creative Problem-Solving Program (CPS), Covington's Productive Thinking Program (PTP), Purdue Creative Thinking Program (PCTP), school programs trying to improve students' creativity and related abilities through regular classroom arrangements, and other programs including Transcendental Meditation programs of kinesthetic experiences. These programs purport to increase:

1. Fluency: The ability to produce a large number of ideas with words or figures.
2. Flexibility: The ability to produce a variety of kinds of ideas, to shift from one approach to another, or use a variety of strategies.
3. Originality: The ability to produce ideas away from the obvious, commonplace, banal, or established.
4. Elaboration: The ability to develop, embroider, embellish, carry out, or otherwise elaborate on these ideas (Rose & Lin, 1984, p. 15).

They found that generally moderate verbal creativity was more affected than figure creativity. This confirmed an earlier study. The reasoning was that most creative training programs rely on verbal activity.

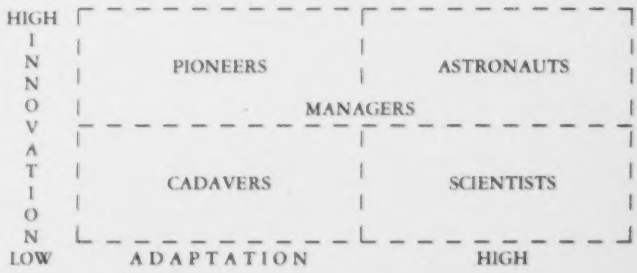
Comparing the individual programs they found:

> The substantial impact of Osborn and Parnes' CPS on verbal creativity combined with the conclusions from . . . reviews provide strong evidence to support the effectiveness of this program. The use of the CPS in education and business should foster more original thinking among practitioners.
>
> The relatively small effects of both the Purdue Creative Thinking Program and Covington's Productive Thinking Program (PTP) are surprising. The apparent weakness of these programs which have been around for more than ten years may be due in part to the lack of adequate research and data reporting. Although the PTP has been highly evaluated in previous reviews, little hard data have been made available for analysis.
>
> Other creativity programs that combine several essential creativity components such as brainstorming, checklists, etc., and special techniques which use activities like dramatics, kinesthetic experiences and the Transcendental Meditation program may offer more varied and flexible experiences than the packaged programs which account for their larger effect on creativity.
>
> The overall results . . . suggest that training does affect creativity. . . . Creative thinking is at once a skill that can be developed through the various teaching methodologies and an innate ability that some individuals have in greater abundance than others. . . . Through education and training the innate creative thinking ability of individuals can be stimulated and nourished (Rose & Lin, 1984, p. 21).

A Model of Creativity in the Firm

At the beginning of this article, the dimensions of creativity in the firm were discussed. These two dimensions—innovation and adaptation—are the basis for a model of the creativity in the firm. The various quadrants are used to describe the types of people found in each, with the manager in the middle.

Figure 1
Creativity in the Firm



The people on the low end in both innovation and creativity are cadavers. These are people in a rut, and a guru once described a rut as a grave that was open on both

ends. This is not altogether a bad position. These people are production oriented, get the job done, etc. It is just hard to be creative with your nose to the grindstone and your shoulder to the wheel. Actually, this quadrant houses many Walter Mittys who may be useful to the firm in a creative sense if their daydreams can be harnessed by management (Mitchell, 1983).

The highly adaptive people are scientists. They have the education to be creative but somehow lack the flexibility of thought to be innovative. It appears that the more education a person has digs a deeper rut. Perhaps this is one reason why two bicycle mechanics could build an airplane, and Professor Langley could not.

The highly innovative "pioneers" do not conjure up a picture of the immigrants and Daniel Boones who made this country great. The true pioneers in the twentieth century are the people in the basements and garages building Scott Air Packs and Apple computers. They will soon leave the firm, get a Small Business Administration loan, and go to work for themselves.

The combination of high innovative ability and adaptability describes astronauts. A recent metaphysical author said that the one occupation which best describes our culture today is an astronaut. The persons sent to explore brave new worlds are as scientifically insulated from that world as they can possibly be (Powell, 1976). Perhaps that is why so many managers consider creative people as introverts or loners. A recent motion picture, "The Right Stuff," depicted our first astronauts with all their foibles and idiosyncrasies. It did, however, point out the difficulty that these creative, risk-taking people had with bureaucracy and scientists. They did get the United States to the moon first.

This leaves the managers in the middle. Dealing with both low and high creativity in people requires many hats. It is often easier to fire or ignore creativity, but both the manager and firm lose in the long run.

The manager must be creative in that he believes in the possibility of positive changes. He must be able to communicate that possibility or vision to others.

References

Abend, J. C. "Innovation Management: The Missing Link in Productivity," *Management Review*, 68, 1979, 25-38.

Blake, S. P. "Managing for Responsive Research and Development," *Managing for Responsive Research and Development*. San Francisco: W.H. Freeman and Company, 1978.

Bruen, H., Schwaacz, J. H., and Barinbaum, L. "Examining Social Aspects of Creativity—a Multi-Media Approach," *Journal of Creative Behavior*, 18(1), 1984, 41-44.

Drucker, P. F. *Wall Street Journal*, February 2, 1982.

Haefele, J. W. *Creativity and Innovation*. New York: Reinhold Publishing Corporation, 1962.

Hermone, R. "Creativity: The Supervisor's Secret Weapon," *Supervisory Management*, 24, 1979, 24-28.

Howard, N. "Business Probes the Creative Spark," *Dun's Review*, 115, 1980, 32-38.

Keller, R. T., and Holland, W. E. "Communicators and Innovators in Research and Development," *Academy of Management Journal*, 26(4), 1983, 742-749.

Maas, D. "Creativity and Urban Public Leadership," *Journal of Creative Behavior*, 15(3), 1981, 199-294.

Merrifield, B. "Nurturing the Innovator," *Research Management*, 22, 1979, 12-14.

Mitchell, B. "Chicken Claws and Creative Juices," *Journal of Creative Behavior*, 17(1), 1983, 190-194.

Naisbitt, J. *Megatrends*. New York: Warner Books, 1984.

Odiorne, G. S. "Setting Creative Goals," *Training and Development Journal*, 33, 1979, 14-20.

Petrosko, J. M. "The Alchemy of the Soul: A Study of Eric Hoffer's Thoughts on Creativity," *Journal of Creative Behavior*, 17(2), 1983, 131-145.

Powell, J. *Fully Human, Fully Alive*. Allen, TX: Argus Communications, 1976.

Rose, L., and Lin, H. "A Meta-Analysis of Long-Term Creativity Training Programs," *Journal of Creative Behavior*, 18(1), 1984, 11-22.

Simberg, A. L. *Creativity at Work*. Boston: Industrial Education Institute, 1964.

Soll, H. P. "Creativity in the Marketplace," *Journal of Creative Behavior*, 16(3), 1982, 212-222.

Steiner, G. A. (ed.). *The Creative Organization*. Chicago: University of Chicago Press, 1965.

Turner, W. J. "Stimulating and Rewarding Invention—How the IBM Awards Program Works," *Research Management*, 22, 1979, 24-27.

Wheeler, D. R. "Creative Decision Making and the Organization," *Personnel Journal*, 58, 1979, 374-404.

Vessels, G. "The Creative Process: An Open-Systems Conceptualization," *Journal of Creative Behavior*, 16(1), 1982, 185-195.

Wolff, M. "How to Find—and Keep—Creative People," *Research Management*, 22, 1979, 43-45.

Young, J. G. "Psychic Freedom in Creative Persons," *Journal of Creative Behavior*, 15(3), 1981, 179-182.

The MID-SOUTH BUSINESS JOURNAL is available without charge. Please use this form to request a subscription or change an address and return to:

Bureau of Business and Economic Research
The Fogelman College of Business and Economics
Memphis State University
Memphis, Tennessee 38152

Check one:

☐ New subscriber

☐ Correction

Name and address:

Name _____

Address _____

City/State/Zip _____

Previous address for correction:

Address _____

City/State/Zip _____

BEST AVAILABLE COPY

4th Quarter 1985

MID-SOUTH BUSINESS JOURNAL

Bureau of Business & Economic Research
The Fogelman College of Business and Economics
Memphis State University

MID-SOUTH BUSINESS JOURNAL

Volume VI, Number 1 January 1986

MEMPHIS STATE UNIVERSITY

Thomas G. Carpenter ..... President

THE FOGELMAN COLLEGE
OF BUSINESS AND ECONOMICS

J. Taylor Sims ..... Dean

BUREAU OF BUSINESS AND ECONOMIC RESEARCH

John E. Gnuschke ..... Director
James McFadyen ..... Managing Editor
B. Lewis Alvarado ..... Research Assistant
Shirley J. Stanphill ..... Research Editor

THIS PUBLICATION IS MADE POSSIBLE
IN PART BY A FINANCIAL GRANT FROM

THE NATIONAL BANK OF COMMERCE
MEMPHIS, TENNESSEE

CONTENTS

Volume VI, Number 1 January 1986

NATIONAL ECONOMIC OUTLOOK 3
Edward G. Boehne

CAN MEMPHIS MEET THE CHALLENGE OF A CHANGING ECONOMIC ENVIRONMENT? 5
J. Taylor Sims

ECONOMIC REPORT FOR 1985 AND OUTLOOK FOR 1986 8
John E. Gnuschke and Dave Bourne

FAMILY TAX BURDENS IN KENTUCKY AND TENNESSEE: HOW DO THEY COMPARE? 11
Stephen E. Lile

THE PUBLIC ACCOUNTING PROFESSION: AN EVALUATION 15
M. Frank Barton

MONETARISM, DEFICITS, CROWDING OUT, AND INTEREST RATES 17
William P. Field, Donald R. Andrews, and R. Morris Coats

The MID-SOUTH BUSINESS JOURNAL is published quarterly by the Bureau of Business and Economic Research, Memphis State University, Memphis, Tennessee 38152, in the months of January, April, July, and October, as a service to the business community. Second-class postage paid at Memphis, Tennessee. POSTMASTER: Send address changes to Bureau of Business Research, Memphis State University, Memphis, Tennessee 38152.

The opinions expressed in the authored articles are not necessarily those of the Bureau, the College, or the University, but are the responsibility of the individual authors. The material may be reproduced without permission if acknowledgment of the source is given.

An Equal Opportunity/Affirmative Action University PS 1/86-1096

NATIONAL ECONOMIC OUTLOOK

*Edward G. Boehne**

Economy

The U. S. economy is now three years into recovery—about the average life of business expansions during the last three decades. The key questions are: Is the economy about to peter out and sink into recession? Or, is there still some life left that will carry us through 1986 on an expansion path? I believe, in a nutshell, that 1986 will be a growth year, not a boom year, but one characterized by modest upward momentum. Imports will continue to be a drag on the economy, but housing should be a plus. Both consumer spending and business investment are likely to be "so-so"—not great, but not terrible either. Overall, growth should be about the same next year as it has been this year.

It will also be, in my judgment, a year of continued moderation on the inflation front. One of the more remarkable aspects of the current expansion is that here we are well along in the upside of a business cycle with very few signs of building inflationary pressures. Wage hikes remain tempered, and commodity prices remain soft. The outlook for 1986 is for more of the same.

We have also witnessed declining interest rates during the past 18 months. The prevailing view among most interest rate forecasters is for flat to declining rates during the months ahead.

All in all, the outlook in the broadest sense for the nation as a whole continues to look reasonably good for next year.

Problems and Risks

The above statements present a rather happy outlook, and perhaps I ought to stop while I'm ahead. There are, of course, some problems and risks that need to be mentioned to round out the story for 1986.

The first problem is that our prosperity is very uneven across regions and industries. Traditional manufacturing and agriculture are in deep trouble, while services are generally doing well. Of the 9.0 million jobs added during the current economic expansion, 80.0 percent have been in services. While there has been some recovery in manufacturing since the trough of the last recession, there are fewer jobs in manufacturing now than there were in 1980. There are sharp regional contrasts as well, notably between the prospering East Coast (yes, I said prospering East Coast) and the hard-hit agricultural Midwest.

In one sense we can be philosophical about these disparities. After all, one can argue, this is how the market system works—there are winners and there are losers.

At a more pragmatic level, however, there are social and political limits to how much economic disparity a nation will tolerate. Those limits will be tested in 1986 in several areas. Most of the protectionist bills will test the political balancing of the "greater harm" versus the "narrow gain." Special aid bills for agriculture and for thrift institutions also fall into the same category. It would be one of the great miscalculations of our times to move headlong down the road of protectionism. It's a "lose-lose" game that is sure to lead to big trouble. We must resist the temptation of protectionism with all our resolve.

The major reason why manufacturing and agriculture are doing so poorly, to be sure, is our huge international trade deficit, but shrinking the $200 billion budget deficit of the federal government would do far more to close the trade gap than protectionist measures. If you add up the federal deficit plus increases in private debt, you get a number that is roughly $150 billion greater than what we as a nation save. In order for our national books to balance, we have to borrow $150 billion from abroad. In other words, foreigners have to buy that much in government bills, notes and bonds, plus private securities for us as a nation to close the savings-spending gap. Until recently, this inflow of foreign funds had driven up the value of the dollar sharply and made it more difficult for us to compete in international markets, with the result that we are running a $150 billion trade deficit and all the fallout that kind of imbalance brings to specific industries.

The bottom line is that there is no more pressing need for the longer run health of our economy than to reduce the federal deficit to manageable levels over time. Most people understand that. What has been lacking so far is the inability to translate that understanding into budgetary action. I remain hopeful that the budget outlook will improve.

**President, Federal Reserve Bank of Philadelphia, Philadelphia, Pennsylvania.* *Presentation at the 23rd Annual Mid-South Business Outlook Conference, The Peabody Hotel, Memphis, Tennessee, December 12, 1985.*

Now some might say, "But hasn't the value of the dollar come down?" "Won't intervention in foreign exchange markets help?" Yes, intervention in foreign exchange markets has helped, but that only buys time. Intervention is no substitute for fundamental changes like reducing the budget deficit.

Federal Reserve Policy

Let me say a few words about monetary policy.

Federal Reserve policy has been generally accommodative in 1985. The reasons are that the economy has been growing only moderately, inflation has not accelerated, and we have been sensitive to some of the financial pressures in areas like energy, real estate, and agriculture.

The major argument for being less accommodative has been rapid growth in the money supply. While money growth should not be ignored, I, personally, have not been overly concerned about rapid money growth causing a reacceleration of inflation. While the supply of money has been growing, the turnover or velocity of money has been falling. The reasons for falling velocity are technical and not all that clear, and now is not the time to go into them. The main point is that the traditional relationship between money and the economy has become distorted, and being practical people we have had to pay less attention to money as a guide to making policy decisions. Perhaps a predictable relationship will re-emerge and monetary growth again will become more useful. In the meantime, however, one must be very skeptical of basing Fed policy on money growth.

One other factor you should be aware of. Now that the United States has become so dependent on the flow of funds from abroad, we have to make sure that dollar-denominated investments remain appealing to foreigners. What that means is that the United States' financial system has become much more interrelated with world financial markets. For example, if U.S. interest rates dropped significantly below rates in other industrial countries, foreigners holding U.S. securities might be tempted to shift funds somewhere else to get a higher return. Such shifts could be more disruptive to our economy and financial system now than in the past because of our new status as a debtor nation. In the conduct of monetary policy, therefore, we in the Federal Reserve have little choice but to give greater weight to foreign financial developments than would have been the case a few years ago.

What can we do if we don't like our growing dependence on foreign financing? Clearly, as I pointed out earlier, the number one remedy is to reduce the federal deficit. Another approach is to increase our savings rate which, since data have been collected, is now at a record low. Increasing savings would entail a big change in our spending habits and perhaps a major overhaul in our tax system as well. Why should we, for example, tax interest income from savings, but allow a tax writeoff for interest charged for credit card purchases and loans. My fellow Philadelphian, Benjamin Franklin, must be wondering if our savings-spending incentives are upside down.

Summary

Let me conclude by restating the main points in the national economic outlook:

1. The economy should continue to grow moderately, although unevenly, across industries and regions in 1986.
2. Inflation should remain at more or less current levels.
3. All in all, we are predicting a fairly good outlook.
4. There are, however, some clouds related to our twin deficits—the international trade deficit and our federal budget deficit.
5. The single most important step we can take on the economic front in 1986 is to get control of the federal deficit. That would brighten the business outlook, help lower interest rates further, and make us less dependent on foreign financing. I remain hopeful that we will take that step.

CAN MEMPHIS MEET THE CHALLENGE OF A CHANGING ECONOMIC ENVIRONMENT?

*J. Taylor Sims**

The quarter century following World War II was a period of unprecedented growth for the American economy. Equally important, that growth worked, on balance, to equalize long-standing differences among the nation's regions. As daily headlines in the business press continually remind us, the economic problems of the 1980s clearly demonstrate that the postwar era of relatively painless economic growth and expansion has come to a close.

There have been, however, fewer comparable headlines for a development phenomenon every bit as rich in implication for the nation's future, one that has a major impact on Memphis and the Mid-South — a new-found divergence in regional growth rates.

Between 1940 and 1970, regional demographic growth rates were converging. Since 1970, however, the nation has become increasingly polarized between regions where high levels of natural increase (the excess of births over deaths) combine with high levels of in-migration to produce rapid growth and regions where low natural increase combines with out-migration to produce low or negative growth. Studies from the Joint Center for Urban Studies of MIT and Harvard University predict that this polarization will continue throughout the 1980s and possibly into the 1990s. For example, their East South Central region, consisting of the states of Kentucky, Tennessee, Alabama, and Mississippi, is projected to grow in population by 23.0 percent from 1980 to 1990, which is in addition to the 14.5 percent growth rate from 1970 to 1980. Tennessee enjoyed a 16.9 percent growth rate from 1970 to 1980, with a projected 20.1 percent growth rate from 1980 to 1990. By contrast, the heavily industrialized states in the North Central (Illinois, Ohio, Indiana, Michigan, and Wisconsin) and the Middle Atlantic (New York and Pennsylvania) regions have lost and will continue to lose population and employment in certain industries.

The bottom line is that the nation faces a continuing shift of employment, income, and population away from the older, industrialized, and densely settled regions of the North toward the newer, less industrialized, and more sparsely settled regions of the South and West. And, this means opportunity for Tennessee and for Memphis. What we are seeing, of course, is a shifting of the center of gravity of industry to obtain a favored cost position.

How Regions Grow

Conventional economic wisdom holds that the production of transportable goods, i.e., those goods whose production is not tied to a specific area, is most efficient where wages are lowest. But circumstances change over time—low wages lead to increased production, which boosts a region's demand for labor, which eventually exhausts the labor supply, which drives up wages, which reduces the area's economic advantage. By this logic, growth tends to even out; for as a region approaches the limits of its economic advantage, business moves on to areas of lower cost opportunity.

The experiences of the 1960s and 1970s demonstrated, however, that this logic is flawed. Workers do move from high-wage to low-wage regions, either in search of a better standard of living or to escape unemployment. Further, in some regions the labor supply is quite elastic. Many potential workers, e.g., farmers and college students, enter the labor force only when there is a strong demand for labor. Then, too, factors other than wage rates can limit economic growth—among them, the pool of untapped labor, housing prices, transportation costs, zoning restrictions, tax rates, living costs, and water and energy supplies.

During the 1960s and 1970s, heavy migration of retirees to the Sunbelt boosted population more rapidly than labor supply. By conventional reasoning, we should have seen labor demand grow faster than supply, wages rise, transportable goods production locate elsewhere, and job seekers follow. This did not happen. Instead, the high elasticity of the labor supply made workers available as

**Dean, Fogelman College of Business and Economics, Memphis State University, Memphis, Tennessee.* *Presentation at the 23rd Annual Mid-South Business Outlook Conference, The Peabody Hotel, Memphis, Tennessee, December 12, 1985.*

needed and kept wages low—all of which made the southern region attractive to new business investment. At the same time, with more individuals working, per capita incomes rose.

During the 1970s, the Mid-South region had the lowest wages in the nation, yet per capita incomes in this area approached the national average far more quickly than did either hourly wages or annual earnings per employee. Further, although the share of the Mid-South economy devoted to manufacturing is growing, it remains relatively low. Thus, this region, along with other Sunbelt areas enjoying new and efficient factories, is less sensitive than others to recessions in manufacturing. True, factors other than recession or labor shortage can limit economic growth, but most of these—high energy prices, transportation bottlenecks, high taxes, high capital costs, etc.—are less pronounced here than elsewhere.

Shift from Industrial to Information/ Service Based Economy

A second important consideration to the Mid-South region is the general shift from an industrial to an information and service based economy. The following data dramatically demonstrate this phenomenon:

Worker Involvement Shift, 1960 and 1985 (In Percent)

	1960	1985
Industry	65.0	30.0
Service	12.0	17.0
Information	17.0	50.0
Other	6.0	3.0

Clearly, our economy is undergoing a fundamental change, one in which Memphis is fully involved. We are shifting to a "post-industrial society." We are fast becoming a service and information based economy. We are shifting from core, goods-producing industries—the so-called smokestack industries—to "high tech" industries. This does not mean that we should abandon attempts to develop mature capital- and labor-intensive industries, but it does mean that we should prepare for and work toward maximizing our position within a transition that is already upon us.

The idea of a "post-industrial" economy was brought into clear focus by John Naisbitt in his best selling book, *Megatrends*. Naisbitt predicts, you will recall, "that the electronics, computer and information companies will replace the G.M.'s and U. S. Steel's of today," and that most of us will soon be engaged in "the creation, processing, and distribution of information." If this is true, we must face the probability that high capital-labor intensive industries can never be made "fully productive again" in the United States.

Meaning to the Memphis Area

Well, what does all of this mean to the Memphis area and its future? What does all of this mean to an area caught in the middle of the beginning of the so-called "post-industrial society?" For one thing, it means that the Memphis and Shelby County area, its business and supporting organizations, and the citizens who make these organizations go cannot sit back actionless. If national trends indicate accelerated growth in this region, then we cannot be satisfied with reports of slow, steady growth or downturns that mirror the national economic picture. There is too much potential in Memphis for that type of continuous activity. We can, of course, be pleased with the fact that unemployment rates have declined steadily in the Memphis area since 1982 and have been consistently lower than the current national unemployment rate. Even though general economic trends point to a service and information based economy, we as Memphians should take little comfort in the fact that non-manufacturing jobs increased enough to offset 14 consecutive months of declining employment in the manufacturing sector in this area, or that per capita income is increasing. Given our economic assets, we should move aggressively forward to attract strong manufacturing based industry to complement the service, distribution, and information industry success we are enjoying.

Planning for Action

As a relative newcomer to Memphis, I cannot pretend to know all of the fine efforts that are currently going forward to spearhead economic growth and development. I do see many, and I applaud them. However, in my discussions with many of you, concern for real progress with an aggressive strategic plan continues to surface. I will ask you the question as a newcomer: Are we moving along rapidly with a strong plan of action, or are we drifting? I am sure that a poll would show divided opinion, so I prefer to take the posture that you can never do too much planning of the right kind, and that is "action planning." As part of "action planning," the Memphis area as a whole must take inventory of its assets and liabilities and develop the strongest possible marketing plan. This is, in reality, no different from the task that faces the many organizations that prosper in our community.

At the risk of repeating lists of positive and negative factors that may have been developed in the past, I present the following considerations for planning. Many of these factors played an important part in our own decision to come to Memphis:

Positive Factors

(1) Education Opportunities
(2) Excellent Location in the Sunbelt
(3) Excellent Distribution and Transportation
(4) Positive Attitude of Memphians
(5) Health Facilities
(6) Remarkable Cultural Opportunities
(7) Good Land Availability
(8) Convention Center
(9) Good Public Services
(10) Good Recreational and Sports Facilities

(11) Reasonable Costs of Doing Business
   (a) Wages
   (b) Utilities
   (c) Local/State Taxes
   (d) Real Estate
   (e) Health Care

But, these positive factors may not be enough to attract and retain new business. There are many cities in the Sunbelt that have similar positive factors. A marketing job needs to be done.

Negative Factors

(1) Lack of a Clear Strategic Plan for Area Growth
(2) Lack of Promotion of the Memphis Area, i.e., a Clear and Positive Image
(3) Effective Use of Downtown Resources
(4) Lack of Unified Local and County Government
(5) Ways to Rechannel the Unemployed

The good news is that the positive factors far outweigh the negative ones, and each is being addressed in some way. The bad news is that there is no unified plan. Efforts at economic development appear fragmented.

The answer lies close to home. It lies within every forward thinking institution in the city and county that is grappling with the question of sustained economic growth. The answer is that we must have a unified planning effort which will develop a strategic action plan for the future.

Memphis must have a "flight plan" to direct its future, one that will provide a sense of purpose, philosophy, and direction to the city and that will ensure selective and consistent application of its resources. I specifically recommend a "Strategic Management Plan With a Market Focus." Such a plan would do the following:

(1) Begin to clear the city and county of short-term emergency problems and the negative factors mentioned above.
(2) Take inventory of all existing business and supporting organizations and examine their current market vitality on such criteria as:
   (a) Centrality to the Memphis area, or how vital the continued survival of each organization and service is to the city.
   (b) Quality—What is the perceived and actual quality of each organization and service?
   (c) The current and projected demand for the products and/or services of these organizations.
   (d) The comparative advantage these organizations and services have by being in Memphis.
   (e) The profitability of these organizations and services, or put another way, the cost of doing business in Memphis.
(3) The result of this positioning analysis would be to ascertain the balance of industrial, service, technical, and supporting organizations needed and that can be logically expected to stay, locate, or relocate in Memphis.
(4) Develop a marketing plan, including a political advocacy agenda, marketing strategy, and tactics, that will:
   (a) Publicize Memphis with a positive image, and
   (b) Attract the industry that can reasonably be expected to come here.
(5) Acquire the necessary resources for carrying out the plan and allocate these resources appropriately through the budgeting process.
(6) Implement the various stages of the plan.
(7) Continually review the results and update as needed; in other words, maintain an ongoing process.

If all of this sounds difficult to conceive of doing, believe me, it is; but it can and must be done in this or some similar format. The first task, of course, is to develop the unity necessary to carry out a common task.

Let me conclude with a personal note. I have migrated to Memphis from one of those slow growth regions I mentioned at the outset of this presentation. I am excited at the opportunity to work with all of you to help move our community forward. The resources are here, the opportunity is here, and we are all here. We must get serious about a real action agenda. I have presented a thumbnail sketch of an action plan today. I have seen it work elsewhere. Only you, however, can make this or any alternative plan work in Memphis. I urge you to first, consider the concept of "real action" and second, consider the action plan we have just outlined and the unity needed to carry it through. I am convinced that this is what must be done to ensure a vital and progressive economic and social environment in this great area. Thank you very much.

ECONOMIC REPORT FOR 1985 AND OUTLOOK FOR 1986

*John E. Gnuschke and Dave Bourne**

The economy of Memphis continued to improve in 1985. The current expansion started in October 1982 and is beginning its fourth year. This is an usually long expansion period when compared to peacetime business cycle patterns. While the rate of economic growth was slower in 1985 than it was in the two previous expansion years, the sustained expansion was a positive note in a year where much attention was focused on risks of an economic downturn. Clearly, prevailing economic conditions will present unique challenges to efforts to sustain economic growth in 1986.

National Economic Performance in 1985

National economic performance in 1985 created mixed signals about the potential for further economic expansion in 1986. For the first three quarters of 1985, GNP grew at a very modest 2.1 percent annual rate. This was a sharp reduction from the 6.0 percent growth rate experienced in 1984. Most of the reduction in growth rates occurred during the first two quarters of the year when the annualized growth rates were 0.3 percent and 1.9 percent, respectively. The national economy regained some of its previous upward momentum in the third quarter when the annualized growth rate rebounded to 4.3 percent. However, this momentum was not expected to be maintained in the fourth quarter of 1985. A sluggish 1985 fourth quarter was expected to set the stage for continued slow growth in the first two quarters of 1986.

Declining interest rates, ease of access to credit, and subdued inflation were major catalysts for sustaining economic growth in 1985. In spite of numerous forecasts of higher interest rates, interest rates slowly drifted lower during 1985. The prime interest rate is currently at or near its lowest level in seven years. Interest rates on consumer loans, however, varied substantially; while rates were lower for loans on some industry-specific products such as automobiles, they remained at high levels for most other consumer loans after adjustments for inflation were considered. These high real interest rates have combined with accommodating monetary policy and industry competition to increase the availability of credit for consumers. In spite of strong consumer demand, consumer prices rose only a modest 3.3 percent through October 1985, the lowest inflation rate since 1967.

Other aspects of the nation's economic performance, however, were not as positive in 1985. For example, while the economy created 1.7 million new jobs during the first three quarters of the year, other factors such as declines in manufacturing and farm employment and increases in labor force participants combined to prevent national unemployment rates from declining substantially. After a full year of positive but somewhat lower economic growth, the civilian unemployment rate in October 1985 was 7.1 percent, down only 0.2 percent from October 1984. Real income gains in the nation also slowed sharply in 1985, rising less than 1.0 percent. As a result, much of the expansion of the economy in 1985 was financed from dramatic increases in consumer debt and continued reductions in savings. The savings rate reached an all-time low in 1985, and figures on consumer debt reached an all-time high.

Other economic problems, such as the nation's trade imbalance and the federal budget deficit, increased in importance in 1985. The foreign trade imbalance remains as one of the primary weaknesses in the national economy. The levels of imports from other countries increased throughout the year. By contrast, exports declined in recent months. The resulting trade deficit dramatically reduced GNP growth in 1985. Domestic manufacturing and agriculture were the most severely affected sectors.

Foreign capital, attracted by high interest rates, moved into the nation's financial markets as rapidly as other foreign goods. As a result, the U.S. became a net debtor nation in 1985. Increased dependence on foreign capital has generated a new concern for the economy should its performance begin to show signs of weakness in 1986.

Economic Performance of Memphis in 1985

The growth of the Memphis area economy in 1985 mirrored national economic growth figures. As measured by the Memphis Business Activity Coincident Index,

**Director and Research Associate, Bureau of Business and Economic Research/Center for Manpower Studies, Memphis State University, Memphis, Tennessee.* *Information presented at 23rd Annual Mid-South Business Outlook Conference, The Peabody Hotel, Memphis, Tennessee, December 12, 1985.*

economic activity at the local level advanced at a 2.3 percent annual rate from October 1984 through October 1985. Slower but fairly steady growth occurred throughout the year, but first and second quarter signs of weakness in the national economy were subsequently reflected in slow growth and even downturns in the Memphis economy index activity after mid-year 1985.

Employment increases were one positive aspect of the Memphis economy in 1985. Total non-agricultural employment increased by 11,700 jobs from October 1984 to October 1985. *October represented the 36th consecutive month in which local non-agricultural employment increased.* As a result, unemployment rates declined steadily from 9.7 percent at the start of the recovery in October 1982 to 6.6 percent in October 1985 and were consistently lower than the current national unemployment rate.

Most of the employment advances in Memphis occurred in the retail trade, government, and service sectors of the economy. Non-manufacturing positions increased by nearly 14,000 jobs from 332,900 jobs in October 1984 to 346,700 jobs in October 1985. This gain offset 14 consecutive months of declining employment in the manufacturing sector. Manufacturing employment declined by 2,100 jobs from 58,500 in October 1984 to 56,400 in October 1985.

A second bright spot in the Memphis economy in 1985 was the fairly rapid increases experienced in per capita income. Per capita income levels have increased at a pace well above the national average in each of the last two years. While these increases are important indicators of the strength of Memphis' economic performance, income levels in Memphis still fall below national averages.

The local housing market was also strong during most of 1985, with data on housing starts, permits issued, and sales of new and existing homes reflecting increases over 1984 levels. These advances can be credited to slowly declining mortgage rates, declining interest rates on construction financing, remaining tax advantages, and strong consumer demand based on fear of renewed inflation and higher interest rates.

Strong housing sales also boosted sales of household durables by more than 11.0 percent above 1984's levels. Increases in expenditures for household durables coincided with substantial increases in total retail sales for the year. Local spending on apparel, new cars, and services increased in 1985. Through September, total retail sales were 3.0 percent above the total for the same period in 1984.

National Economic Outlook for 1986

The national economy is expected to continue its modest expansion in 1986. The rate of growth of real GNP accelerated in the third quarter of 1985 and suggests that some strength still exists in the national economy. Concern exists, however, that much of the third quarter increase may not be sustainable. Soaring domestic auto sales, spurred by financing incentives, may have caused the consumption portion of GNP estimates to increase without reflecting any sustainable improvements in overall economic conditions.

Downside pressure associated with rising trade imbalances, record budget deficits, and the potential for increases in interest rates, inflation, taxes, and trade restrictions will constrain economic growth in 1986. We expect real GNP to grow between 3.0 and 3.3 percent in 1986, with much of the growth occurring in the second half of the year.

Unlike 1985, much of the economic growth in 1986 is expected to come from increases in factory orders and not from increases in consumer sales. Record low savings rates, record high consumer debt levels, and modest increases in income will serve to constrain consumer sales. Increases in sales to businesses should, however, offset slower consumer sales. Businesses have allowed inventory levels to decline sharply in the past 18 months, and inventory accumulation should help support industrial production in 1986.

The value of the dollar should remain strong in 1986 on the basis of the strong economic performance expected for the domestic economy relative to other world economies. The dollar's value is, however, expected to continue its slow decline from the record 1985 levels. These declines should help constrain the rate of growth of the trade imbalance by increasing the relative price of foreign goods. The sale of domestic goods produced for export should increase correspondingly and should result in modest improvements in economic conditions in some manufacturing and agricultural sectors.

The absolute level of the trade imbalance should continue to increase, however, in spite of the decline in the dollar's value. Foreign producers have the capacity to produce without raising prices, and this should help maintain the attractiveness of imports. By contrast, sluggish overseas economies are expected to generate little new demand for American goods.

Average consumer prices are expected to rise between 4.5 and 5.0 percent in 1986 on the basis of rising commodity, energy, and import prices. Price increases for foreign goods that occur as a result of declines in the value of the dollar will be passed on to consumers in 1986. The bad weather forecast for this winter and low fuel inventories will increase energy costs in most of the country and will add to inflationary pressure in 1986.

With inflation rates expected to rise during 1986, market interest rates are also expected to rise. The Federal Reserve Board took an active role in reducing interest rates in 1985, and some further small declines in interest rates may occur in early 1986. As inflationary pressures build in 1986, the Fed is expected to adopt a less accommodative stance that will force market rates to rise by year's end. In addition, high real interest rates are expected to be maintained by most lenders in 1986. This will cause nominal interest rates to rise in response to an increase in inflation.

Finally, federal budget deficits are expected to rise in 1986. No evidence is available which suggests that legislative interest exists in decreasing spending for either domestic or defense projects. In addition, no increase in taxes can be expected to take effect in 1986. Consequently,

it is likely that budget deficits will increase because of continuing expenditures and the revenue imbalance.

Economic Outlook for Memphis in 1986

Changes in the national economy in 1986 will be reflected in economic conditions in Memphis. Slower national economic growth rates in 1985 and early 1986 can be expected to be reflected in slowing growth rates for Memphis during most of 1986. The Memphis Economy Index of Leading Indicators, however, has increased for the past 11 months and suggests that conditions favor continuing economic expansion in 1986. Historically, the leading index has moved in cycles roughly eight to twelve months ahead of changes in the area's economy. The individual components of the leading index were generally positive through the third quarter of 1985. Based on these factors, we believe the local economy will achieve the economic growth rates experienced in 1985. The economy of the Memphis MSA, as measured by the Memphis Business Activity Coincident Index (an indicator of real economic growth), is expected to grow from 2.5 to 3.0 percent during 1986.

The local job market should continue to improve in 1986. Employment increases will continue to be concentrated in non-manufacturing. Retail sales, distribution, and service industries will generate most new private sector positions. Employment is expected to expand slowly in government and other sectors. Manufacturing jobs are expected to continue their long-term decline in 1986. Even if existing firms announced plant expansions or new firms developed new plants, most of the manufacturing employment gains would take place in subsequent years. A slow fourth quarter 1985 economy, combined with forecasts of slow growth in the first two quarters of 1986, should continue to cause declines in manufacturing employment in Memphis.

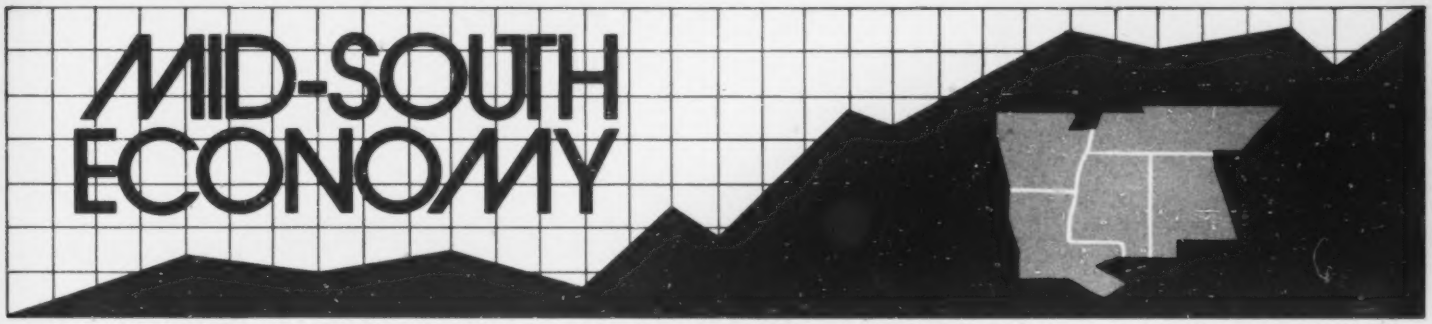
Unemployment rates in Memphis are expected to remain near 6.5 percent during early 1986 and rise late in the year in response to slowdowns in the local economy. Rising employment levels will not offset local labor force increases and employment declines in manufacturing.

Real retail sales are expected to rise by about 2.0 percent in 1986. Spending on services and household durable and non-durable goods will be strong, while sales of other durable goods will grow very slowly.

Demand for residential housing should remain strong in early 1986. The inventory of available single-family houses declined in 1985 as home purchases were spurred by declining mortgage rates. The multi-family rental market, however, was overbuilt in some areas of the city in 1985. A number of large developments, currently under construction, will be completed in 1986 and will add to the surplus of rental property during the year. As a result, vacancy rates will rise and competition between property developments will intensify in 1986.

Residential single-family and multi-family construction activity should remain strong during the first half of 1986 as the inventory of single-family homes increases and as multi-family projects under construction are completed. Rising interest rates may encourage home buyers in the first half of 1986 but discourage them later in the year. Rising vacancy rates and increases in competition should also slow the development of multi-family rental properties in 1986.

As when any business cycle approaches a peak, mixed economic signals make the timing of future economic movements difficult to anticipate. On balance, while we see no danger of a recession in 1986, our analysis of current economic conditions suggests that no more than a modest improvement in the local economy can be expected in 1986.



BUREAU OF BUSINESS & ECONOMIC RESEARCH THE FOGELMAN COLLEGE OF BUSINESS AND ECONOMICS MEMPHIS STATE UNIVERSITY

STATISTICAL SUPPLEMENT

THE MID-SOUTH ECONOMY

Preliminary data for fourth quarter 1985 reveal continued strength in the current economic expansion, which is entering its fourth year. Unemployment dipped below 7.0 percent, inflation remained subdued, and short-term interest rates were below 8.0 percent. Upwardly revised estimates for third quarter 1985 indicate an annual growth rate of 4.5 percent in the nation's real Gross National Product. The annual rate of growth over third quarter 1984 was 2.7 percent. Retail sales have been lack-luster since April, but, in constant dollar terms, personal consumption expenditures were 4.7 percent above third quarter 1984 levels. While industrial production levels were only 1.0 percent above August 1984, lower inventory levels at the end of 1985 should remove a depressant to economic activity and add stimulus to production. In addition, corporate profits after taxes have registered solid gains over the last four quarters. The major area of concern is the international trade sector. The trade deficit exceeded the $100.0 billion annual rate mark during third quarter 1985, with exports totaling $347.0 billion, a decline of 5.9 percent from third quarter 1984. Recent declines in the trade-weighted value of the dollar should help increase the foreign demand for U.S. goods. Already, agricultural exports registered substantial increases during October and November 1985.

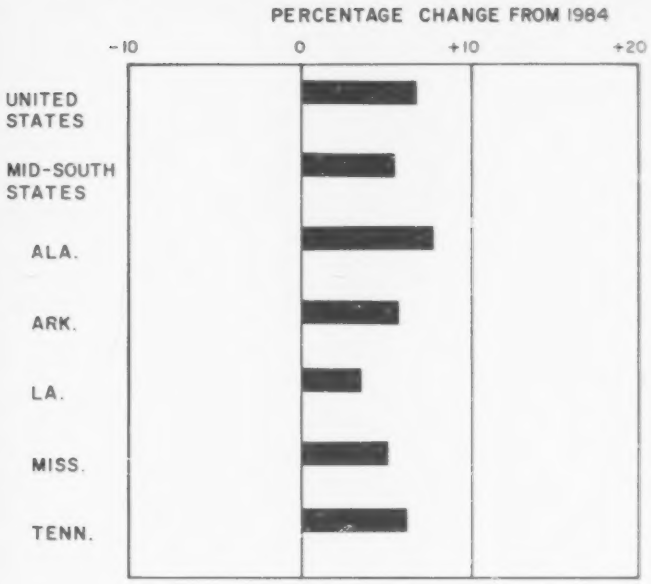
For the Mid-South states, personal income during the period rose a moderate 5.4 percent, underperforming the national increase of 6.7 percent. Alabama and Tennessee were the only Mid-South states which kept pace with the nation. Sales tax collections were generally higher on a year-to-date basis across the Mid-South. Total employment in the Mid-South rose 205,000 workers from last October, a gain of 2.8 percent. The unadjusted aggregate unemployment rate stood at 8.7 percent in October 1985 compared with a 9.5 percent rate in October 1984. Finally, a Bureau of Economic Analysis report on U.S. affiliates of non-bank foreign companies located in the Mid-South indicated that the number of persons employed totaled 170,552. The companies owned 14.0 million acres with a gross book value of $21.0 billion. The largest percentage increases in this employment category since 1981 have been in Alabama and Mississippi.

For 1986, the preconditions for an economic downturn are decidedly absent. The consensus forecast points to moderate growth in the 3.0 to 3.5 percent range, with inflation edging slightly upward to around 4.0 percent. Monetary policy is generally expected to remain accommodative. The Gramm-Rudman bill to reduce the federal deficit will take effect in October 1986 and should help relieve the huge borrowing needs of the federal government later in the year. The prospects of a lower dollar value, continued low inflation, and reduced deficits provide impetus to the prediction that 1986 will continue on a moderate path of economic expansion.

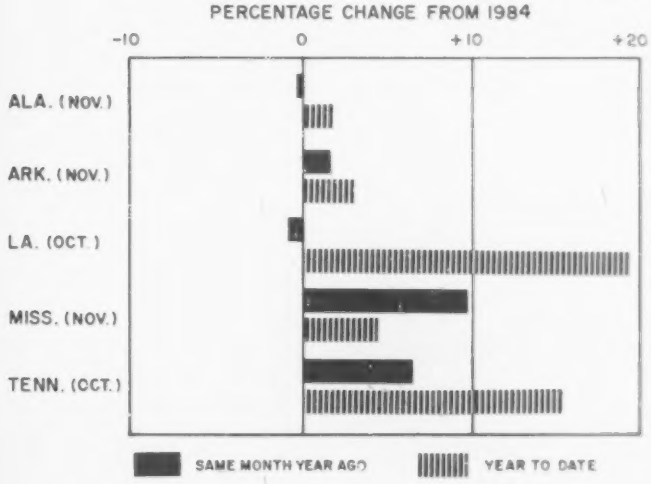
LABOR

The Mid-South civilian labor force totaled 8,367,300 in October 1985, a gain of 1.8 percent over October 1984 and on par with the national increase. The total number of persons unemployed across the Mid-South declined by 53,800, or 6.9 percent, from a year ago. The moderate gain in the civilian labor force and a 3.0 percent jump in non-agricultural employment dropped the aggregate Mid-South unemployment rate to 8.7 percent in October compared to a 9.9 percent rate in October 1984. The comparable 1983 figure was 10.7 percent. The October 1985 unemployment rates for Mid-South MSAs were: Birmingham, Alabama, 6.5 percent; Little Rock, Arkansas, 6.8 percent; New Orleans, Louisiana, 10.9 percent; Jackson, Mississippi, 7.0 percent; and Memphis, Tennessee, 6.1 percent. Mid-South manufacturing employment registered a slight decline of 0.8 percent. Non-durable goods production was hardest hit with a decline of 3.2 percent, compared with a 0.4 percent decline nationally. In fact, non-durable goods employment losses in the Mid-South accounted for a large percentage of the losses in the U.S. Durable goods production also experienced a decline of 2.9 percent, double the national decline of 1.4 percent. On an industry basis, transportation, retail trade, and services were the only categories to register a decline in their

PERSONAL INCOME - II QTR. 1985

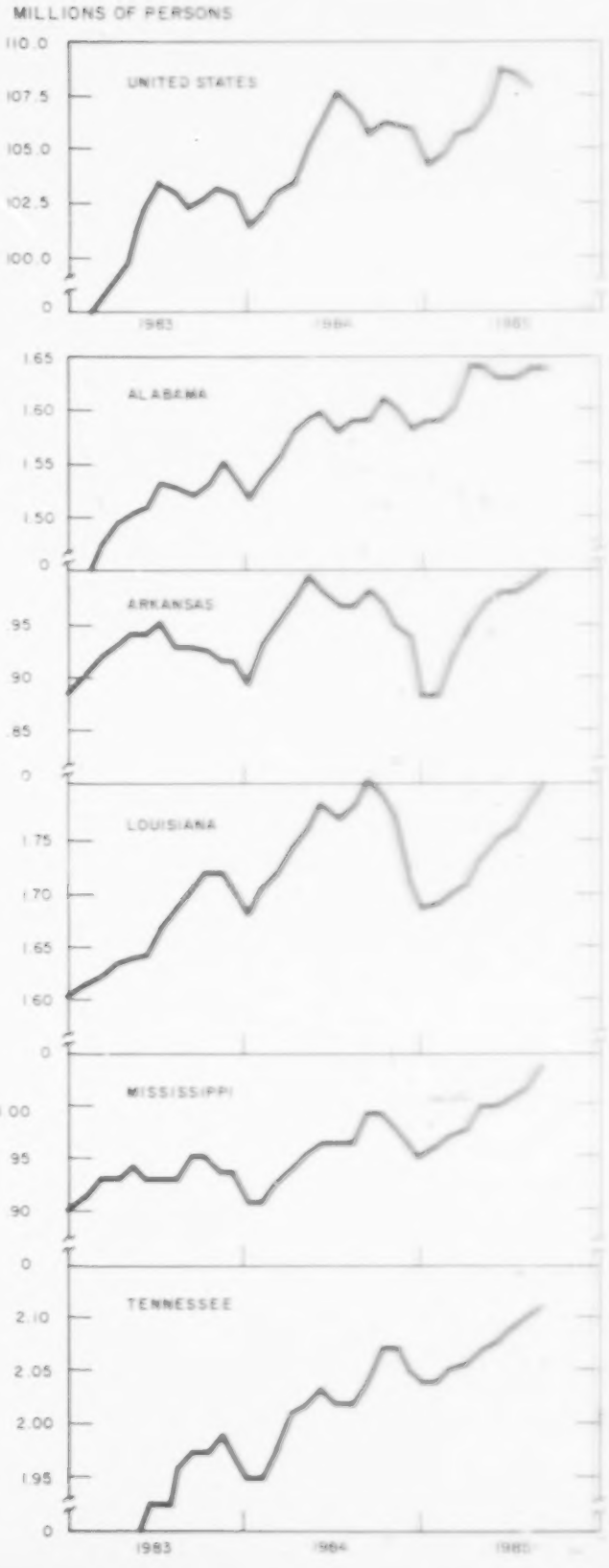


SALES TAX COLLECTIONS 1985



SOURCES: BUREAU OF ECONOMIC ANALYSIS
STATE DEPARTMENTS OF EMPLOYMENT SECURITY AND REVENUE.

TOTAL EMPLOYMENT



particular unemployment rates. From another perspective, the unemployment rate for persons over 25 years of age who are married, with spouse present, was 3.5 percent. The rate for single, never married was 8.6 percent. For women who maintain families, the rate was 10.8 percent, while that of men who maintain families was 8.0 percent.

CONSTRUCTION

Total building activity across the Mid-South increased 10.5 percent for the twelve months ending September 1985 compared with the same twelve-month period in 1984. The increase in the dollar value of permits issued was on par with the national gain. However, the Mid-South experienced an overall decline in the residential sector. The total number of dwelling units was 11.2 percent below the comparable 1984 period. For the nation, the total number of dwelling units remained little changed at 1,688,600 units per year. Alabama and Tennessee registered solid gains in the residential sector, while Mississippi and Louisiana were one-third lower in the number of dwelling units for which permits were issued. The bright spots continued to be declining mortgage rates

LABOR OCTOBER 1985	United States	Mid-South States				
		Alabama	Arkansas	Louisiana	Mississippi	Tennessee
Civilian Labor Force	116,346,000	1,807,600	1,102,700	2,022,900	1,142,500	2,291,600
Percent Change Year Ago	+1.8	- 0.5	+2.5	+ 3.0	+4.5	+2.1
Unemployed	7,917,000	142,100	95,400	219,700	107,700	160,700
Percent Change Year Ago	-0.9	-25.5	+6.7	+17.4	-0.5	-9.9
Unemployment Rate						
1985	6.8	7.9	8.7	10.9	9.4	7.0
1984	7.0	10.5	8.3	9.5	9.9	7.9
Non-Agricultural Wage & Salary Employees	98,529,000*	1,406,500	806,200	1,597,200	856,100	1,898,300
Percent Change Year Ago	+3.1	+ 0.6	+0.5	- 0.7	+1.8	+3.3
Manufacturing Employment	19,332,000*	348,100	209,500	175,300	220,900	482,000
Percent Change Year Ago	-1.0	- 3.4	-3.0	- 4.7	-0.1	-3.6
Non-Manufacturing Employment	79,197,000*	1,058,400	596,700	1,421,900	635,200	1,416,300
Percent Change Year Ago	+4.2	+ 2.0	+1.8	- 0.2	+2.6	+5.9
Average Weekly Earnings of Production Workers in Manufacturing	$388.28	$355.59	$314.42	$432.43	$294.76	$337.83
Percent Change Year Ago	+3.8	+ 7.6	+6.8	+ 4.7	+5.0	+3.2
Average Weekly Hours of Production Workers in Manufacturing	40.7	41.3	41.1	41.5	40.6	40.9
Percent Change Year Ago	+0.5	+ 0.9	+2.5	+ 1.2	+0.5	+0.2
Average Hourly Earnings of Production Workers in Manufacturing	$ 9.54	$ 8.61	$ 7.65	$ 10.42	$ 7.26	$ 8.26
Percent Change Year Ago	+3.2	+ 6.4	+4.2	+ 3.4	+4.5	+3.0

*Seasonally adjusted.

Source: Departments of Employment Security and Survey of Current Business.

CONSTRUCTION[1] SEPTEMBER 1985	United States	Mid-South States				
		Alabama	Arkansas	Louisiana	Mississippi	Tennessee
Total Building						
Percent Change Year Ago	+10.8	- 2.8	N.A.	- 1.2	+ 0.0	+35.4
Residential Building						
Percent Change Year Ago	+ 7.5	+11.7	N.A.	-28.0	-13.5	+33.1
Non-Residential Building[2]						
Percent Change Year Ago	+15.0	-11.9	N.A.	+25.6	+21.1	+38.5
Total Dwelling Unit						
Percent Change Year Ago	+ 0.1	+ 4.9	N.A.	-37.5	-32.7	+13.2

[1]Twelve-month cumulative rate.

[2]Non-residential data exclude the cost of construction for publicly-owned buildings.

Source: The Federal Reserve Bank of Atlanta from data supplied by the Bureau of Census.

and non-residential building. The Department of Housing and Urban Development's conventional first mortgage rate stood at 11.86 percent in October 1985 compared with a 13.01 percent rate last April. In addition, non-residential permit activity in eleven Mid-South metropolitan areas totaled $2.2 billion in October 1985, an increase of 16.4 percent from October 1984.

Mid-South construction employment totaled 344,700 in October 1985, an increase of 1.3 percent over October 1984. Nationally, construction employment climbed 7.8 percent. However, the unemployment rate in the construction industry remained relatively high at 10.7 percent.

FINANCE

Commercial bank deposits across the Mid-South rose 4.9 percent in October 1985, underperforming the national increase of 7.8 percent. The rate of growth in savings deposits registered solid gains from 1984 levels. Nationally, NOW account deposits jumped 21.0 percent from a year ago but currently represent only 6.1 percent of total deposits.

Monetary policy is likely to remain accommodative throughout 1986, with interest rates the major concern. Recently, six-month interest rates edged higher, with the Treasury bill rate 16 basis points above the July 1985 level of 7.16 percent. The yields on Moody's Aaa corporate bonds and 30-year Treasury bills have remained steady since last July, suggesting a moderate interest rate climate for the near term. However, business and consumer credit is expected to grow moderately, and the anticipated large credit demands of the federal government during the first quarter of 1986 should place upward pressures on interest rate levels during the first half of 1986.

HOUSING (SHELBY COUNTY)

All indicators of housing activity in Shelby County during third quarter 1985 exhibited solid growth, especially apartment starts and reduced mortgage foreclosures.

Total residential permits issued during the first nine months of 1985 compared to the same period in 1984 increased 90.8 percent, from 5,288 in 1984 to 10,090 in 1985. The increase can be attributed to a 170.0 percent increase in apartment unit permits, from 2,652 in 1984 to 7,161 in 1985. By comparison, apartment permits for third quarter 1985 totaled 452. Single-family permits issued during third quarter 1985 increased 31.6 percent from a year ago, while apartment permits increased to 1,707 units, quadruple the second quarter 1984 level.

Total residential starts increased during third quarter 1985, up 11.4 percent from a year ago. This increase was primarily due to a 30.0 percent jump in apartment starts. Single-family starts registered a decline of 12.3 percent.

FINANCE OCTOBER 1985	United States	Mid-South States	Alabama	Arkansas	Louisiana	Mississippi	Tennessee
Member Banks as of 10/3/85 Percent Change from Comparable Date 1984							
Total Deposits	+ 7.8	+ 4.9	+ 0.9	N.A.	+ 5.8	+ 6.1	+4.9
Demand Deposits	+ 7.2	+ 6.9	+ 6.1	N.A.	- 1.9	+ 9.8	+3.8
Time Deposits	+ 0.6	+ 1.1	- 7.7	N.A.	+ 2.1	+ 3.9	+2.0
Savings Deposits	+18.8	+14.3	+12.1	N.A.	+21.8	+13.2	+8.2

Source: The Federal Reserve Bank of St. Louis and the Federal Reserve Bank of Atlanta.

SAVINGS AND LOAN ACTIVITY	Alabama	Arkansas	Louisiana	Mississippi	Tennessee[1]
Mortgage Loans Made (millions) Percent Change Year Ago Percent Change Year-to-Date	CHANGE IN DATA REPORTING FORMAT. NO COMPARABLE DATA AVAILABLE FOR THIS REPORT.				
Net Savings Flow (millions)[2] Percent Change Year Ago Percent Change Year-to-Date					

[1]Figures are for total loans made.

[2]Net savings flow equals new savings received plus dividends credited minus savings withdrawn.

Source: Federal Home Loan Banks of Little Rock, Cincinnati, and Atlanta.

Year-to-date figures for housing starts indicated that apartments accounted for 64.7 percent of the Shelby County total.

Sales of new single-family homes increased during third quarter 1985 to 790 units, or by 21.7 percent. Condominium sales also recorded an increase and on a year-to-date basis remained 34.0 percent above the 1984 level.

New single-family homes sold for an average price of $93,789 during third quarter 1985, an increase of $1,305 over the average during third quarter 1984. Year-to-date 1985 average selling prices for single-family homes increased 3.5 percent compared to a 10.9 percent increase registered during the first nine months of 1984. In contrast, the average year-to-date selling price for condominiums declined 15.6 percent compared to the 1984 figure.

Real estate transfers increased 25.4 percent during the third quarter of 1985 compared to the same period in 1984. The dollar amount totaled $477.1 million in third quarter 1985, a gain of 12.7 percent. Mortgage foreclosures declined 2.1 percent in third quarter 1985 compared to third quarter 1984. Moreover, on a year-to-date basis, foreclosures declined from 1,127 in 1984 to 1,085 in 1985. The comparable figure for 1983 was 1,212.

Housing permits for the incorporated portions of Shelby County (excluding Memphis and Germantown) totaled 207 units for third quarter 1985, an increase of 13.1 percent from third quarter 1984. Bartlett accounted for 35.7 percent of the residential activity, while Collierville issued permits on 126 units compared to 27 units in 1984.

The inventory of both completed and uncompleted homes in Shelby County reflected a marked increase in third quarter 1985 as compared to third quarter 1984. However, in comparing second quarter 1985 and third quarter 1985 figures, there was a 3.6 percent reduction in the inventory of uncompleted homes and an 18.0 percent reduction in the inventory of completed homes. These statistics reflect a very active and increasing new home market in Shelby County.

The number of housing units sold totaled 5,089 through third quarter 1985 compared to 4,007 units during the same period in 1984, an increase of 27.0 percent. The average selling price of all units sold in Shelby County from third quarter 1984 to third quarter 1985 increased by 5.5 percent. In constant dollar terms, the average selling price of all housing has increased approximately 2.1 percent above last year.

Table 1

SHELBY COUNTY HOUSING INDICATORS, THIRD QUARTER, 1984-1985

Items	Third Quarter 1985	Third Quarter 1984	Year-to-Date 1985	Year-to-Date 1984	Percent Change Year-to-Date 1985 From Year-to-Date 1984
NEW RESIDENTIAL UNITS					
Total Permits Issued[1]	2,744	1,158	10,090	5,288	+ 90.8
Single-Family	1,033	785	2,917	2,620	+ 11.3
Duplex	4	2	12	16	- 25.0
Apartments[2]	1,707	371	7,161	2,652	+170.0
Total Starts[1]	1,788	1,605	5,432	4,679	+ 16.1
Single-Family	625	713	1,905	2,101	- 9.3
Duplex	4	--	10	2	+ 40.0
Apartments[2]	1,159	892	3,517	2,576	+ 36.5
Sales Closed					
Single-Family (New)	790	649	1,858	2,014	- 7.7
Condominium	161	135	560	418	+ 34.0
Average Sales Price					
Single-Family (New)	$93,789	$92,484	$93,394	$90,194	+ 3.5
Condominium	$48,599	$56,401	$51,095	$60,527	- 15.6
REAL ESTATE TRANSFERS					
Number	6,109	4,871	15,609	14,150	+ 10.3
Amount (000)	$477,122	$426,656	$1,377,760	$1,222,891	+ 12.7
NUMBER OF MORTGAGE FORECLOSURES	365	373	1,085	1,127	- 3.7

[1]Expressed in number of dwelling units.

[2]Apartments include condominiums and townhouses.

Table 2

RESIDENTIAL BUILDING PERMITS AND STARTS, INCORPORATED AREAS (EXCLUDING MEMPHIS AND GERMANTOWN)[1] IN SHELBY COUNTY, THIRD QUARTER, 1985

Area	Permits			Starts		
	Single-Family	Duplex[2]	Apartments[2]	Single-Family	Duplex[2]	Apartments[2]
Bartlett	74	--	--	74	--	--
Arlington	--	--	--	--	--	--
Millington	2	--	--	2	--	--
Collierville	126	--	--	102	--	--
Lakeland	5	--	--	5	--	--
Total	207	--	--	183	--	--

[1]Due to local government consolidation between Memphis and Shelby County, residential permits and starts cannot be separately identified for the municipalities of Memphis and Germantown. The statistical data for these two municipalities are included in the data for unincorporated Shelby County.

[2]Number of dwelling units.

Table 3

INVENTORY OF UNSOLD SINGLE-FAMILY HOUSING UNDER CONSTRUCTION AND NEW HOUSING, SHELBY COUNTY, TENNESSEE, SEPTEMBER 31, 1985

Square Feet	Summary of Uncompleted Houses, Days Since First Inspection						Summary of Completed Houses, Days Since Final Inspection					
	<30	30-60	60-90	90-180	>180	Total	<30	30-60	60-90	90-180	>180	Total
Under 1,000	1	4	3	14	46	68	3	3	--	2	133	141
1,000 - 2,000	7	22	7	19	56	111	12	10	5	6	111	144
1,200 - 1,400	28	38	24	42	72	204	22	14	7	4	125	172
1,400 - 1,600	24	31	26	47	106	234	39	15	4	7	145	210
1,600 - 1,800	17	20	20	40	53	150	19	4	4	4	70	101
1,800 - 2,000	23	17	27	67	61	195	18	8	4	5	72	107
2,000 - 2,200	16	16	17	44	77	170	17	7	8	7	65	104
2,200 - 2,400	6	17	9	33	70	135	11	11	4	1	46	73
2,400 - 2,600	10	19	16	39	68	152	9	5	5	3	68	90
2,600 - 2,800	8	12	15	22	54	111	10	1	2	3	30	46
2,800 - 3,000	3	10	2	16	51	82	7	1	1	2	24	35
3,000 - 3,200	6	1	7	10	32	56	3	--	--	3	30	36
3,200 - 3,400	2	2	5	14	30	53	4	2	1	--	21	28
3,400 - 3,600	1	3	3	10	30	47	1	1	1	1	19	23
3,600 - 3,800	1	4	4	8	27	44	1	2	2	--	17	22
3,800 - 4,000	3	1	1	8	31	44	3	--	1	--	11	15
Over 4,000	10	8	12	40	117	187	10	11	4	5	68	98
Total	166	225	198	473	981	2,043	189	95	53	53	1,055	1,445

Source: K. William Chandler, Housing Inventory.

Table 4

SALES OF EXISTING AND NEW SINGLE-FAMILY RESIDENTIAL UNITS AND DUPLEXES, MEMPHIS AND SHELBY COUNTY, TENNESSEE, THIRD QUARTER, 1968-1985, AND ANNUAL SUMMARY, 1968-1984

Year	Total Dollar Volume All Price Ranges (Millions)		Number of Units Sold		Average Sale Prices All Units	
	3rd Quarter	Annual	3rd Quarter	Annual	3rd Quarter	Annual
1968	$ 56.2	$187.8	3,354	11,517	$16,740	$16,306
1969	58.9	204.8	3,269	11,851	18,035	17,281
1970	60.0	201.1	3,236	11,264	18,541	17,853
1971	82.3	273.1	3,933	13,727	20,925	19,895
1972	N/A	N/A	N/A	N/A	N/A	N/A
1973	118.0	396.3	4,374	15,278	27,090	25,939
1974	115.3	395.0	3,875	13,789	29,764	28,646
1975	127.5	401.6	3,955	12,942	32,245	31,031
1976	141.5	493.7	4,113	14,985	34,330	32,946
1977	195.4	537.5	5,220	14,700	37,433	36,565
1978	219.7	739.4	5,299	18,359	41,461	40,274
1979	239.2	819.3	5,156	18,371	46,393	44,579
1980	239.9	739.7	4,756	15,248	50,451	48,511
1981	171.2	605.1	3,033	11,455	56,445	52,824
1982	145.6	518.7	2,565	9,590	56,779	54,088
1983	245.2	791.1	4,063	13,684	60,361	57,810
1984	250.8	914.8	4,007	15,074	62,569	60,689
1985	335.8	--	5,089	--	65,988	--

Source: K. William Chandler, Residential Sales Report.

TENNESSEE ECONOMY

Total non-agricultural employment in Tennessee in October 1985 increased 3.3 percent over October 1984, slightly above the national increase of 3.1 percent. The number of persons unemployed declined 9.9 percent, causing the unemployment rate to fall to 7.0 percent for October 1985. The comparable rate for October 1984 was 7.9 percent. The unemployment rate decreased in 76 counties, increased in 15 counties, and remained the same in 4 counties. Williamson County had the lowest rate at 2.5 percent. Decatur County had the highest rate at 21.2 percent. Initial claims for unemployment also experienced a decline, down 29.0 percent from year ago levels. Non-manufacturing gained 78,700 jobs, primarily in the trade and service sectors. Government employment registered solid gains, with Tennessee's local governments adding 6,600 jobs. Finance, insurance, and real estate experienced an increase of 5,200 jobs from a year ago. Manufacturing employment continued to slip in October 1985, down 3.6 percent from October 1984. However, primary metals (durable goods) registered a gain of 1,500 production workers, while paper products (non-durable goods) added 1,400 workers. For Tennessee MSAs, the quarterly percentage changes in non-agricultural employment from third quarter 1984 were: Chattanooga, 5.2 percent; Nashville, 3.0 percent; Memphis, 2.4 percent; Tri-Cities, 0.5 percent; Knoxville, -0.7 percent.

For the twelve months ending September 1985, the dollar value of total building permits in Tennessee increased 35.4 percent from the comparable 1984 period. The total number of dwelling units jumped 13.1 percent, an annual rate of 38,800 units. Non-residential permit activity rose 38.5 percent, with solid gains registered in industrial buildings and hospitals. Construction employment gained 3,000 jobs, an increase of 3.9 percent. However, mortgage commitments by Tennessee's savings and loans were 4.9 percent below the levels last September.

Temperatures during November were unseasonably warm, providing excellent crop drying and harvesting conditions, especially for field crops and small grain seeding. The weather was also beneficial for preparing tobacco for market. Egg production totaled 65 million eggs, approximately 3.0 percent below year ago levels. However, milk production increased to 179.0 million pounds, a gain of 4.7 percent. In addition, for the first ten months of 1985 compared to the same period in 1984, total livestock (cattle, hogs, sheep, and lambs) slaughtered increased 1.2 percent to total 851.2 million pounds. Tennessee's index for prices farmers received stood at 121.0 for all farm products. The index was seven percentage points below last November, or 5.8 percent. However, the index has registered gains for the past three months. On the cost side, the index for prices paid by farmers, as

measured on the national level, declined one index point below last November's level of 184.0.

Tennessee ranks 10th in the nation in manufacturing climate according to a recent study by Alexander Grant and Company. "Manufacturing climate" refers to a collection of 22 major factors which measure a state's ability to provide a productive environment. Tennessee ranked 4th in taxes, 10th in wages, 17th in population density and change, and 21st in unionization. Tennessee placed 14th in the survey a year ago.

Finally, the Bureau of Economic Analysis reports that foreign companies located in Tennessee employed 58,818 workers during 1983, with the majority originating from European companies, especially the Netherlands and England. Moreover, Tennessee surpassed Georgia in having the most workers employed by Japanese companies in the eleven-state Southeast region. And, the Bureau of the Census reports that, based on full-time equivalent employment in government per 10,000 population, the five metropolitan counties in Tennessee had employment ratios as follows: Davidson, 207.9; Hamilton, 270.2; Knox, 132.1; Shelby, 216.3; and Sullivan, 93.6.

FAMILY TAX BURDENS IN KENTUCKY AND TENNESSEE: HOW DO THEY COMPARE?

*Stephen E. Lile**

Introduction and Purpose

Fiscal diversity among states is desirable from a public choice viewpoint because it offers taxpayers the opportunity to choose the level and mix of government expenditures and taxation that best suits their needs and preferences.[1] Taxation or expenditure differences can influence location decisions and are of particular interest when the differences are large and occur between neighboring states such as Kentucky and Tennessee, which are otherwise quite similar.[2]

The most frequently used method for comparing tax burdens among states involves summing up all taxes collected (e.g., sales, income, property, business license, corporate income, mineral severance, etc.) and dividing by either state population or personal income. The result, respectively, is "taxes per capita" and "taxes as a percentage of income." Both measures are easily computed, which explains their widespread use; however, they have serious shortcomings when used to measure and compare resident tax burdens among states.[3]

First, neither measure provides any indication of how the tax burden is distributed among income classes. States X and Y with equal taxes per capita are viewed as placing an equal tax burden on their residents even though the distribution of the burden might be highly regressive in State X but proportional or progressive in State Y.[4] While tax equity defies objective definition and people disagree about the weight that it should be given among the many criteria of a good tax system, few persons would favor ignoring equity. Second, taxpayers have difficulty relating their particular income and family size circumstances to either of the conventional measures of tax burden. The third and perhaps greatest shortcoming involves the treatment of business taxes. The conventional measures lump business taxes with direct taxes levied on persons and implicitly assume that the entire burden of taxes collected by State X is on the residents of State X. This is highly unlikely because of tax exporting. In reality, business taxes collected by State X may be shifted to residents of States Y and Z in the form of higher prices for goods sold or (assuming no tax shifting) in the form of reduced profits to owners of businesses operating in States Y and Z. Under either assumption, a major portion of business taxes collected by a given state is likely to become a burden on residents of other states.[5]

Another tax burden measure—family tax burdens—does not suffer these shortcomings because only tax types are included which are known to be a burden on residents of the taxing state and because this measure can be computed for families with above and below average income levels.[6]

This article presents estimates of the 1984 family tax burdens of four hypothetical families assumed to live alternately in Kentucky and Tennessee and compares the results with results based on conventional tax burden measures.

Method and Scope

Family tax burden estimates are based on the following tax types: state individual income, local income, state general sales, local sales, and residential property. Estimates are based on a four-person family that is assumed to reside alternately in six Kentucky and six Tennessee cities. Calculations are based on tax rules in effect during 1984. Sources used in estimating tax burdens include the 1984 Optional Sales Tax Tables contained in the 1040 federal income tax instruction booklet, the 740 Kentucky income tax instruction booklet, and property tax rate and assessment ratio information provided by Kentucky and Tennessee property tax departments. Property tax calculations are based on the following market values for housing by family income level:

Income Level	Market Value of Residence
$15,000	$ 35,000
20,000	45,000
40,000	90,000
60,000	130,000

Market values are appropriately adjusted to reflect actual assessment practices.

**Professor, Economics Department, Western Kentucky University, Bowling Green, Kentucky.*

No attempt is made to include user fees paid by families, nor is any attempt made to estimate the benefits from government expenditures accruing to families.

Findings

Dollar Tax Burdens

Tax burdens are presented in Tables 1 through 4 for hypothetical families with adjusted gross incomes of $15,000, $20,000, $40,000, and $60,000, respectively. At each income level and for all cities studied, the tax burden in Tennessee is substantially lower than in Kentucky. In fact, taxes in the highest tax location studied in Tennessee—Memphis—are lower than in the lowest tax burden location studied in Kentucky—Hopkinsville. Comparisons by tax type also show marked differences between states. The most notable difference is the absence of either a state or local income tax on wage and salary income in Tennessee.[7] In contrast, sales and property taxes are higher in Tennessee.

Table 1
FAMILY TAX BURDEN BY TYPE OF TAX, 1984
FAMILY A: $15,000 AGI

Location	Individual Income		General Sales		Property		Total Tax
	State	Local	State	Local	State	Local	
Tennessee							
Chattanooga	—	—	$285	$ 91	—	$483	$ 859
Clarksville	—	—	285	116	—	349	750
Knoxville	—	—	285	78	—	458	821
Memphis	—	—	285	116	—	539	940
Murfreesboro	—	—	285	116	—	319	720
Nashville	—	—	285	116	—	278	679
Kentucky							
Bowling Green	$412	$225	178	—	$70	278	1,163
Covington	412	375	178	—	70	493	1,528
Hopkinsville	412	150	178	—	70	176	986
Lexington	412	300	178	—	70	235	1,195
Louisville	412	330	178	—	70	382	1,372
Owensboro	412	150	178	—	70	315	1,125

Table 2
FAMILY TAX BURDEN BY TYPE OF TAX, 1984
FAMILY B: $20,000 AGI

Location	Individual Income		General Sales		Property		Total Tax
	State	Local	State	Local	State	Local	
Tennessee							
Chattanooga	—	—	$330	$105	—	$621	$1,056
Clarksville	—	—	330	135	—	448	913
Knoxville	—	—	330	90	—	589	1,009
Memphis	—	—	330	135	—	693	1,158
Murfreesboro	—	—	330	135	—	411	876
Nashville	—	—	330	135	—	357	822
Kentucky							
Bowling Green	$637	$300	211	—	$90	357	1,595
Covington	637	500	211	—	90	635	2,073
Hopkinsville	637	200	211	—	90	227	1,365
Lexington	637	400	211	—	90	302	1,640
Louisville	637	440	211	—	90	490	1,868
Owensboro	637	200	211	—	90	405	1,543

Table 3
FAMILY TAX BURDEN BY TYPE OF TAX, 1984
FAMILY C: $40,000 AGI

Location	Individual Income		General Sales		Property		Total Tax
	State	Local	State	Local	State	Local	
Tennessee							
Chattanooga	—	—	$512	$163	—	$1,242	$1,917
Clarksville	—	—	512	209	—	896	1,617
Knoxville	—	—	512	140	—	1,179	1,831
Memphis	—	—	512	209	—	1,386	2,107
Murfreesboro	—	—	512	209	—	822	1,543
Nashville	—	—	512	209	—	714	1,435
Kentucky							
Bowling Green	$1,358	$ 600	351	—	$180	715	3,204
Covington	1,358	1,000	351	—	180	1,269	4,158
Hopkinsville	1,358	400	351	—	180	454	2,743
Lexington	1,358	800	351	—	180	605	3,294
Louisville	1,358	880	351	—	180	981	3,750
Owensboro	1,358	400	351	—	180	809	3,098

Table 4
FAMILY TAX BURDEN BY TYPE OF TAX, 1984
FAMILY D: $60,000 AGI

Location	Individual Income		General Sales		Property		Total Tax
	State	Local	State	Local	State	Local	
Tennessee							
Chattanooga	—	—	$616	$196	—	$1,794	$2,606
Clarksville	—	—	616	252	—	1,295	2,163
Knoxville	—	—	616	170	—	1,703	2,489
Memphis	—	—	616	252	—	2,002	2,870
Murfreesboro	—	—	616	252	—	1,187	2,055
Nashville	—	—	616	252	—	1,031	1,899
Kentucky							
Bowling Green	$2,047	$ 900	423	—	$260	1,032	4,662
Covington	2,047	1,500	423	—	260	1,833	6,063
Hopkinsville	2,047	600	423	—	260	655	3,985
Lexington	2,047	1,200	423	—	260	874	4,804
Louisville	2,047	1,320	423	—	260	1,417	5,467
Owensboro	2,047	600	423	—	260	1,168	4,498

Relative Tax Burdens

Table 5 contrasts family tax burdens (assuming residence in Memphis and Louisville) with taxes per capita and taxes as a percentage of state personal income. Kentucky amounts are expressed as a percentage of Tennessee amounts in each measure. The differences result primarily because the conventional measures assume that business taxes are a burden on residents of the state where collected.

Table 5
RELATIVE TAX BURDENS: FAMILY BURDENS COMPARED BY INCOME LEVEL AND WITH TAXES PER CAPITA, 1984
(Kentucky as a Percentage of Tennessee)

Area	Tax as Percent of Income	Taxes Per Capita	Family Tax Burdens			
			$15,000	$20,000	$40,000	$60,000
Kentucky	110	110	146	161	180	190
Tennessee	100	100	100	100	100	100

Source: Tables 1, 2, 3, and 4; Tax Foundation of America.

Table 6 shows how family tax burdens in Kentucky and Tennessee are distributed among income classes by expressing family tax burden as a percentage of family adjusted gross income.

Table 6
DISTRIBUTION OF MAJOR STATE-LOCAL TAXES RELATIVE TO FAMILY INCOME, CALCULATIONS BASED ON MEMPHIS AND LOUISVILLE, 1984
(Tax Burdens as Percentages of Income)

	Adjusted Gross Income, Family of Four			
State	$15,000	$20,000	$40,000	$60,000
Kentucky	9.15	9.34	9.38	9.11
Tennessee	6.27	5.79	5.28	4.78

Source: Author's computations.

Family tax burdens in Kentucky are seen to be roughly proportional to income, whereas the distribution in Tennessee is regressive. Much of this difference is explained by the absence of either a state or local income tax in Tennessee and by the relatively heavy utilization of the sales tax in Tennessee.[8]

Summary and Conclusions

Conventional tax burden measures are inappropriate for comparing tax burdens on families located in different states. Taxes per capita and taxes as a percentage of personal income impute the burden of total tax collections of a given state to families residing in that state when, in fact, a portion is exported to non-residents. Moreover, these measures fail to show how the tax load is distributed among income groups. Conventional measures, for example, show Kentucky with a tax burden approximately 10.0 percent above that of Tennessee when, in fact, family tax burdens in Kentucky are from 46.0 to 90.0 percent higher in Kentucky than in Tennessee.

Recent data show that Kentucky and Tennessee are fairly similar in terms of per capita income and state-local expenditure levels.[9] Differences in family tax burdens, therefore, suggest that Tennessee derives more of its revenue from business taxes or from non-tax sources than does Kentucky.[10] These differences in state-local tax systems have implications for tax equity, tax exporting, and economic development. Experts disagree about the relative importance of taxation in business location decisions, but this factor may tilt the choice toward a low tax state in those cases where other factors are roughly comparable. Recent announcements that major businesses plan to locate facilities in Tennessee suggest that the Tennessee tax system may be a positive influence on economic development.

FOOTNOTES

[1]Charles Tiebout, "A Pure Theory of Local Expenditures," *Journal of Political Economy,* October, 1956.

[2]According to 1983 data, Kentucky and Tennessee differ in per capita income by less than 2.0 percent and in per capita expenditures by less than half a percent. U.S. Department of Commerce, *Survey of Current Business,* August 1984, p. 42. U.S. Department of Commerce, *Compendium of Government Finances,* Table 37. Other examples of pairs of states with dissimilar tax systems are Oregon and Washington and Vermont and New Hampshire. For a study of fiscal differences between Vermont and New Hampshire, see Colin D. Campbell and Rosemary G. Campbell, *A Comparative Study of the Fiscal Systems of New Hampshire and Vermont,* 1940-1974 (Hampton, NH: The Wheelabrator Foundation, 1976).

[3]These measures are, however, appropriate indicators of tax effort, which refers to the extent to which a taxing jurisdiction is using its fiscal capacity, without regard for whether the residents of this jurisdiction bear the burden of the taxes used.

[4]Taxes can be distributed either progressively, proportionally, or regressively among income classes. Under a progressive tax, the percentage of income paid in taxes rises as taxpayer income rises; under a proportional tax, the percentage of income paid in taxes remains constant at different income levels. The percentage of income paid in taxes declines under a regressive tax.

[5]The assumption that such important business taxes as corporate income and property are shifted forward to consumers has come under increasing criticism. Recent theoretical work suggests that the corporate income and business property taxes are borne primarily by stockholders and owners of capital generally. If this is in fact the case, it means that the property tax and corporate income tax are far less regressive than formerly believed. But this new incidence view does not alter the above reasoning that a large portion of business taxes becomes a burden on non-residents. For a good review of the new view of corporate income and property tax incidence, see Henry Aaron, *Who Pays the Property Tax?* (Washington: The Brookings Institution, 1975); and George Break, "The Incidence and Economic Effects of Taxation," in *The Economics of Public Finance,* Alan Blinder, George Break, Peter O. Steiner, and Dick Netzer (eds.) (Washington: Brookings, 1974), pp. 138-168.

[6]The family tax burden concept is explained more fully in Stephen E. Lile and Don M. Soule, "Interstate Differences in Family Tax Burdens," *National Tax Journal,* December, 1969, pp. 433-446.

[7]The Tennessee income tax is levied at a 6.0 percent rate on dividend and interest income received from out-of-state corporations. Wage and salary income is not taxed.

[8]Table 6 calculations are based on the assumption that income is entirely from wages. In fact, the tax burden distribution in Tennessee is somewhat less regressive to the extent that upper income families derive income from dividends and interest which are subject to a 6.0 percent tax rate, if paid by out-of-state firms.

[9]See footnote 2.

[10]The Advisory Commission on Intergovernmental Relations estimated that business taxes in 1977 accounted for 35.0 percent and 29.0 percent of total tax collections in Tennessee and Kentucky, respectively.

THE PUBLIC ACCOUNTING PROFESSION: AN EVALUATION

*M. Frank Barton**

The Public Accounting Profession Today

Several studies have recently been conducted concerning the public accounting profession's reputation for independence, objectivity, and ethics. One study, released in June 1985 to the press by Opinion Research Corporation (ORC), found that public accountants enjoy a reputation for quality work. The research also contended:

> The survey found that 87% of the respondents, including chief executive officers, security analysts, and regulatory officials, believe that auditors have high ethical and moral standards; 90% say that auditors exercise independent and objective judgment in performing audits of financial statements; and 72% think that the profession is doing a "good" or "very good" job [*News Report*, 1984, p. 12].

The report went on to state:

> Auditors receive a larger percentage of "excellent" and "good" ratings on ethical-moral practices than other professional groups selected for the survey. They were followed by college-university professors, bankers, and doctors. Those who received more criticism than praise were lawyers, stockbrokers, insurance agents, television newscasters, and U.S. Senators and Congressmen [*News Report*, 1984, p. 12].

Independence, objectivity, and ethical considerations are also of interest and concern to members of Congress. To that end, Congressman John D. Dingell, Chairman of the House Energy and Commerce Committee, on February 20, 1985, convened the first of a series of hearings into the effectiveness and the performance of the Securities and Exchange Commission in meeting its auditing and accounting responsibilities. Mr. Dingell opened the hearings by conveying the subcommittee's regard for independence and public responsibilities essential to the role of an independent auditor. He stated:

> No amount of technical expertise can make an auditor effective if those essential ideals are missing or weakened. It is not enough that financial statements be accurate; the public must perceive them as being accurate. Public faith in the reliability of financial statements depends upon public perception of the outside auditor as an independent professional [*News Report*, 1985, p. 12].

It is not only the perception of the independence of the public accounting profession, but also the quality of work performed for an audit client that is under consideration. Work must be accurate and also perceived as accurate by the public and the audit client.

The Need to Compare Quality of Work With Need

The quality of work performed by independent CPAs and the changing role of public accounting firms are of critical importance to clients in the public and private sectors, regardless of size or composition. The professional horizons of CPAs are constantly expanding into new areas, and they are required to report on an expanding range of financial, management, and economic data. The ability of CPAs to meet the needs of the public and private sectors in providing quality service across broader fields of interest is of critical interest to audit clients and to the general public.

Purpose

The primary purpose of this study was to compare audit clients' intensity of need for specific accounting services with the quality of service provided by their independent CPA. Fifteen different services were identified in interviews with national accounting firm members and reviews of accounting literature. In this analysis it was hoped to determine if the growth in experience and skills of public accountants has kept pace with the expansion of the range of data on which the independent CPA is expected to report.

The Survey

The questionnaire was mailed to a randomly selected sample of 200 chief executive officers or presidents of local

**Associate Professor of Accountancy, Memphis State University, Memphis, Tennessee.*

Memphis firms. The response rate was 28.5 percent. Some replies were of no value as the respondents did not use the services of independent CPAs. The researchers were fairly well satisfied with the response rate due to the nature of the questions. The survey instrument contained questions pertaining to 15 services usually available from independent CPAs.

The Analysis

The results of the Pearson Correlation between "intensity of need" and "quality of service" for each of the 15 survey items are show in Table 1. There was a significant correlation between "need" and "quality" for 12 of the 15 survey items. The three services where there was a significant lack of correlation were: (1) tax preparation, (2) accounting systems design and analysis, and (3) preparation or verification of government reports. It is interesting to note that for tax preparation and government report service, the "quality of service" was less than the "need for the service," and the quality of service provided in systems design exceeded the need.

The five top ranked services relative to intensity of need and quality of service are shown in Table 2. The first four services listed for both quality of service and intensity of need are the same and in the same order, with tax preparation first and auditing examinations in accordance with GAAP and opinion second. Audit clients ranked employee benefits as the fifth item under intensity of need, with accounting systems fifth under quality of service.

Table 1
PEARSON'S CORRELATIONS BETWEEN "INTENSITY OF NEED" AND "QUALITY OF SERVICE RECEIVED" FOR FIFTEEN SERVICES PROVIDED BY CPA FIRMS (N = 34)

Item		Correlation	Significance
1.	Auditing examination in accordance with GAAP and opinion	.352	.041
2.	Unaudited preparation	.393	.021
3.	Writeup work	.643	.000
4.	Tax preparation	.335	.053*
5.	Accounting systems design and analysis	.217	.218*
6.	Forecasting; long-range planning	.536	.001
7.	Design of financial analysis systems	.568	.000
8.	Evaluation of EDP systems	.686	.000
9.	Providing expense control guidelines	.602	.000
10.	Evaluation of mergers and acquisitions	.448	.008
11.	Employee benefits; pension planning	.657	.000
12.	Preparation or verification of government reports	.311	.074*
13.	Executive recruitment	.395	.021
14.	Workflow analysis	.502	.002
15.	Providing professional development programs for in-house accountants	.500	.003

*Not significant at alpha level .05.

Table 2
FIVE TOP RANKED SERVICES

Intensity of Need	Quality of Service Received
Tax preparation (4)[a]	Tax preparation (4)
Auditing examination in accordance with GAAP and opinion (1)	Auditing examination in accordance with GAAP and opinion (1)
Preparation or verification of government reports (12)	Preparation and verification of government reports (12)
Unaudited preparation (2)	Unaudited preparation (2)
Employee benefits; pension planning (11)	Accounting systems design and analysis (5)

[a]Numbers in parentheses represent item numbers.

Summary

This study indicated that audit clients are not completely satisfied with the quality of services provided by their independent CPAs. The quality of work provided by CPAs in tax preparation and preparation or verification of government reports also did not in all cases meet the needs

(Continued on page 20)

MONETARISM, DEFICITS, CROWDING OUT, AND INTEREST RATES

*William P. Field, Donald R. Andrews, and R. Morris Coats**

With the huge federal budget deficits the nation is experiencing now and with more of the same projected for the indefinite future, many people are concerned about the effects of these deficits on the economy. We consider here the Monetarist view of deficits, with special emphasis on whether two apparently contradictory Monetarist arguments can be reconciled: (1) government budget deficits crowd out private spending, making fiscal policy relatively ineffective; and (2) government budget deficits have no effect on interest rates.

We begin by summarizing the Monetarist view of fiscal policy and the most frequently used explanation of crowding out. Next, we move to the current controversy concerning the effects of deficits on interest rates, and then we consider Monetarist arguments for ineffective fiscal policy which do not require interest rate changes. We end the article with our conclusion concerning the possibility of reconciling the two Monetarist arguments.

The Monetarist View Of Fiscal Policy

The views of Monetarists on fiscal policy are well known. Bascially, they claim that, except during a fairly short adjustment period, a change in the government cyclically-adjusted deficit has little effect on nominal aggregate demand in the economy. A shift to larger deficits may increase total spending for one or two quarters, but beyond that point such short-term effects tend to disappear. Thus, "the state of the budget by itself has no significant effect on the course of nominal income, on inflation, on deflation, or on cyclical fluctuations" (Friedman & Heller, 1969, p. 51).

Of course, this assumes that the deficit is not funded by new money creation. Monetarists view government deficits financed by new money as having an expansionary effect on aggregate spending, but they argue that this is because such an action is really monetary policy disguised as fiscal policy. The famous Friedman helicopter could just as well have been used in place of a government deficit. In any case, many Monetarists and other economists have argued in recent years that there is little evidence that deficits typically are monetized (Ritter & Silber, 1983, pp. 264-266; Thornton, 1984, pp. 40-41).

Thus, it can be assumed that deficits are financed by selling bonds to the private sector. Such a method has no monetary effects and can be considered to be pure fiscal policy.

The standard analysis of the effect of a deficit financed by borrowing from the private sector can be summarized as follows: In order to sell additional bonds, the government has to increase interest yields. This causes higher interest rates on all private borrowing. These higher rates crowd some private borrowers out of the market. At least to some extent, the result of the deficit is simply to substitute government spending for private spending. With complete crowding out, there would be no net increase in spending in the economy and no net effect on aggregate economic activity (Friedman, 1962, pp. 80-84; Friedman & Heller, 1969, pp. 50-56).

A crucial factor affecting the degree of crowding out is the elasticity of the demand for money function. If rising interest rates encourage people to economize substantially on their money holdings (if the demand for money is interest elastic), then the velocity of money rises, spending and economic activity increase, and crowding out is less than complete. A less elastic demand for money (the extreme Monetarist assumption is generally thought to be zero elasticity) would yield a higher degree of crowding out.

Thus, the extent of crowding out depends on the elasticities of the investment function and the demand for money function relative to the interest rate. But note that the entire explanation is based on crowding out (to whatever degree) through interest rate increases (Ritter & Silber, 1983, pp. 388-390).

The Current Controversy

The analysis of crowding out summarized above has been widely accepted for many years and dominates textbook considerations of the subject. Monetarists always

**The authors are, respectively, Professor of Economics, Assistant Professor of Economics, and Assistant Professor of Economics, Nicholls State University, Thibodaux, Louisiana.*

seemed to be satisfied with this explanation; at least they did not object when it was utilized.

However, the huge current budget deficits have led many non-Monetarists to use this crowding out argument as their explanation of present seemingly high interest rates. These high rates are then condemned for reducing domestic investment, attracting foreign investors and artificially inflating the value of the dollar, and causing all sorts of other ills. Thus, the argument is made that the deficits must be reduced in order to lower interest rates and remove these damaging effects on the economy (Stein, 1985, pp. 4-5).

Milton Friedman and other Monetarists have responded to this argument with what seems to be a truly strange claim: Deficits have no effect on interest rates. In addition, considerable evidence has been developed to support this claim (Evans, 1985; Plosser, 1982). Obviously, the reason this claim seems so baffling is that it appears to directly contradict the standard Monetarist argument on crowding out. How can crowding out occur? How can fiscal policy fail to be effective if deficits do not affect interest rates?

Ineffective Fiscal Policy Without Interest Rate Changes

What explanations, then, exist for crowding out without interest rate changes? In this section, various arguments used by Monetarists and other economists are summarized. In the next section an attempt is made to evaluate these arguments. In the final section the conclusions are stated.

Negative Expectations Effects

It could be argued that increased government deficits have negative effects on the public's expectations concerning the future performance of the economy. Deficits could lead to fears of national bankruptcy, inflation, depression, or some other harmful outcome. Such fears might lead people to increase liquidity holdings, increase savings, or decrease investments. Any or all of these might decrease private spending enough to offset the increased government spending or lower taxes associated with the deficit (Carlson & Spencer, 1980, p. 124).

Interest Elastic Investment

A second explanation, usually credited to Frank Knight, involves the claim that investment demand is highly elastic with respect to the interest rate. According to this view, the stock of capital is so large relative to investment flows in any given time period that such investment has no significant effect on the marginal efficiency of capital. A real interest rate below the marginal efficiency of capital will result in huge investment demand. A real rate above the marginal efficiency of capital will cause an almost complete collapse of demand. Thus, a very small interest rate increase is all that is necessary to produce major crowding out effects (Carlson & Spencer, 1980, pp. 125-126).

Interest Elastic Foreign Investment

A third explanation involves the claim that foreign investment is highly responsive to interest rate changes. Thus, a slight increase in U.S. interest rates attracts enough foreign funds to finance the deficit. Note that this argument implies that spending rises in the U.S. The crowding out occurs elsewhere in the world (Niskanen, 1983, p. 3).

Substitution Effects

A fourth possible source of crowding out depends on government spending being a substitute for private spending. According to this argument, government investment substitutes for private investment in that the public views both as increasing future consumption possibilities. Given the time preferences of the public, more of one type of investment decreases the need for the other type. Similarly, government consumption displaces private consumption in meeting the public's need for current goods and services. Thus, no effect on aggregate spending occurs as a result of a deficit (Carlson & Spencer, 1980, pp. 126-129; Friedman, 1962, pp. 80-81).

Ricardian Equivalence

This final argument, originally stated by David Ricardo, claims that the public views a dollar of additional deficit as equivalent to a dollar of additional taxes. Seeing huge federal deficits, the public recognizes that taxes will have to be higher in the future. Thus, people increase their savings in order to be able to pay the higher taxes. Government deficits, then, have no effect on total spending (Barro, 1984, pp. 381-384; Niskanen, 1985, p. 3).

Evaluating the Monetarist Arguments

What, then, should we make of these five Monetarist arguments? Do they provide a plausible explanation for crowding out without interest rate effects? We now examine the explanations, dealing with them in the same order as they were presented.

Negative Expectation Effects

The idea that deficits produce fear and pessimism in the minds of the public may have had substantial validity in earlier periods of U.S. history when deficits were unusual and almost universally condemned. It is difficult to give much credence to such an argument today. If anything, deficits have become connected with economic boom in the minds of much of the public. Thus, deficits could perhaps more plausibly be expected to increase rather than decrease private spending.

Interest Elastic Investment

The idea that investment is highly interest elastic is difficult to accept. For one thing, most of the evidence shows a weak response of investment to interest rate changes, except for the residential construction component.

But the reasoning behind the claim of high interest elasticity also seems rather implausible.

The implication of Knight's argument is that a slight increase in the real rate of interest should lead to an almost total collapse of investment spending. One problem with this is that the real rate of interest is always so difficult to measure. For long-term funding of an investment project, assumptions about inflation over the life of the project are crucial to calculating the real rate of interest implied in a loan or a bond issue.

Even more important is the tremendous uncertainty concerning the returns to be earned on long-term capital outlays. A businessman might expect a particular project to yield somewhere between 10.0 percent and 30.0 percent on investment before taxes. Given such uncertainty, it strains credibility to argue that an increase in the real rate of interest from 3.0 percent to 4.0 percent will result in a collapse of business investment. Casual observation of the U.S. economy in 1984 indicates unusually high real rates of interest but booming investment expenditures.

Interest Elastic Foreign Investment

While foreign investment in the U.S. certainly responds to interest rate changes, the idea that it is highly interest elastic is at least subject to question. Prospects for inflation and economic growth in the U.S. and in other countries surely are also important. Casual observations of interest rate changes and changes in the international value of the dollar seem to indicate a rather loose link between the two.

But the crucial criticism of this explanation is that it would not produce the Monetarist result even if true. A government deficit financed by inflows of foreign capital would increase spending in the United States. Crowding out would occur elsewhere in the world rather than in this country. Surely this is not what the Monetarists have in mind when they talk about ineffective fiscal policy.

Substitution Effects and Ricardian Equivalence

This leaves two remaining explanations: (1) government spending substitutes for private spending; and (2) the public views debt and tax financing of government spending as equivalent.

Both of these explanations are based on reasoning usually associated with the New Classical or Rational Expectations school. A distinguishing characteristic of this school is that either the public is assumed to have a rather astonishing level of knowledge and act with extreme rationality, or somehow the public is assumed to behave as if it had the required knowledge.

A series of controversies have arisen with respect to the New Classical view of the financing of government spending. The Feldstein-Barro debate is the best known of these controversies (Barro, 1974; Feldstein, 1983). A key question in their debate is whether people have infinite time horizons so that they fully take into account higher taxes even in the distant future. Associated with this debate is the question of whether it makes any difference if a current deficit involves a permanent rather than only a temporary increase in debt.

We cannot hope here to undertake a complete evaluation of the debate concerning the New Classical school. However, we do want to raise three relatively straightforward objections to the New Classical view of the equivalence of tax and debt financing of government spending. These objections, unless answered satisfactorily, lead us to conclude that the New Classical view of crowding out is implausible:

(1) Comparison to the efficient market hypothesis—At first glance, the New Classical argument seems to be based on the same kind of reasoning as the efficient market hypothesis. That hypothesis implies, for example, that stock prices reflect all available information and that labor markets tend toward equal wages for similar jobs. But the efficient market hypothesis requires only a minimum number of knowledgeable investors or workers. The idea that the public treats government consumption or investment as substitutes for private consumption or investment or that the public treats debt financing as equivalent to tax financing requires that every member of the public behave in that manner. There is no incentive for knowledgeable citizens to make up for the ignorance of others by over adjusting their decisions.

(2) Fiscal Illusion—This widely accepted concept involves the argument that politicians prefer deficits because people do not recognize (at least fully) such deficits as a form of taxation. If the New Classicals are right about Ricardian equivalence, the fiscal illusion argument has to be invalid. However, this means that the obvious political tendency toward deficits is based on mistaken reasoning by politicians. The idea that politicians could be generally and continually wrong on such an important point would seem to be unacceptable from a rational expectations perspective.

(3) Political pressures of deficits on government spending—A favorite argument of conservatives today is that huge budget deficits create political pressures for reductions in government spending. Thus, a rational knowledgeable individual might well argue that debt financing of government spending does not necessarily imply a higher level of future taxation. He might see no logical reason to increase his savings. This means that it is not necessary to assume an ignorant public in order to reject the New Classical argument.

Summary And Conclusions

In this article, we have attempted to reconcile two apparently contradictory Monetarist claims: (1) budget deficits crowd out private spending and thus fiscal policy is ineffective; (2) budget deficits have no effect on interest rates.

The crucial question addressed was how crowding out can occur without interest rate increases. Five possible explanations were considered: (1) deficits produce negative effects on the public's expectations as to future economic performance and thus reduce private spending; (2) investment is highly responsive to interest rate changes, so that a slight rate change produces substantial crowding out; (3) foreign investment in the U.S. is highly responsive to

interest rate changes, so that foreigners finance the deficit with only a slight interest rate increase; (4) deficits are viewed by the public as substituting government consumption or investment for private consumption or investment and thus do not affect total spending; and (5) debt financing of government spending is equivalent to tax financing, because the public recognizes the future tax increases implied in debt financing and thus increases its savings.

Arguments (1), (2), and (3) are rejected as implausible or ineffective in producing the Monetarist result. That left (4) and (5), both of which are based to a substantial degree on the type of reasoning associated with the New Classical school. While not attempting a complete evaluation of that school, we offered three rather straightforward reasons why we find their arguments on this subject implausible.

Having rejected all the possible explanations we could discover for crowding out without interest rate effects, we reached the following conclusion: Either crowding out occurs through a rising interest rate or crowding out does not occur and fiscal policy is effective.

REFERENCES

Barro, Robert J. "Are Government Bonds Net Wealth?" *Journal of Political Economy*, 1974, pp. 1095-1117.

Barro, Robert J. *Macroeconomics*. New York: John Wiley and Sons, 1984.

Carlson, Keith M. and Spencer, Roger W. "Crowding Out and Its Critics," in Thomas M. Havrilesky and John T. Boorman (eds.). *Current Issues in Monetary Theory and Policy*. Arlington Heights, Illinois: AHM Publishing, 1980, pp. 118-143.

Evans, Paul. "Do Large Deficits Produce High Interest Rates?" *American Economic Review*, March, 1985, pp. 68-87.

Feldstein, Martin. "Government Deficits and Aggregate Demand," *Journal of Monetary Economics*, 1983, pp. 1-20.

Friedman, Milton. *Capitalism and Freedom*. Chicago: University of Chicago Press, 1962.

Friedman, Milton and Heller, Walter W. *Monetary vs. Fiscal Policy: A Dialogue*. New York: W.W. Norton, 1969.

Niskanen, William. Comments in Herbert Stein (ed.). "The Performance of the Economy: Deficits, Inflation and Growth," *The AEI Economist*, January, 1985.

Plosser, Charles I. "Government Financing Decisions and Asset Returns," *Journal of Monetary Economics*, 1982, pp. 325-352.

Ritter, Lawrence S. and Silber, William L. *Principles of Money, Banking, and Financial Markets*. New York: Basic Books, 1977.

Stein, Herbert (ed.). "Inflation Remains a Problem — and a Threat," *The AEI Economist*, March, 1985.

Thornton, Daniel L. "Monetizing the Debt," *Review*, Federal Reserve Bank of St. Louis, December, 1984, pp. 30-43.

(Continued from page 16)

of audit clients. The most positive note from audit clients concerned systems design and analysis services provided by CPAs. All responses were favorable, with quality of services exceeding the intensity of need in this area.

There is a difference between the perceived quality of service provided by independent CPAs and the clients' need for those services. How critical this difference may be is yet to be determined and will be the objective of future studies.

REFERENCES

News Report. "Independent CPAs Evaluated in Opinion Research Comp. Survey," *Journal of Accountancy*, August 1984, pp. 12-18.

News Report. "Congressional Subcommittee Hearings into SEC, Accounting Profession," *Journal of Accountancy*, April 1985, pp. 12-20.

The MID-SOUTH BUSINESS JOURNAL is available without charge. Please use this form to request a subscription or change an address and return to:

Bureau of Business and Economic Research
The Fogelman College of Business and Economics
Memphis State University
Memphis, Tennessee 38152

Check one:

☐ New subscriber

☐ Correction

Name and address:

Name _____

Address _____

City/State/Zip _____

Previous address for correction:

Address _____

City/State/Zip _____

M3040-1

1st Quarter 1986

MEMPHIS BUSINESS JOURNAL

Bureau of Business & Economic Research
The Fogelman College of Business and Economics
Memphis State University

MID-SOUTH BUSINESS JOURNAL

Volume VI, Number 2 April 1986

MEMPHIS STATE UNIVERSITY

Thomas G. Carpenter ..... President

THE FOGELMAN COLLEGE
OF BUSINESS AND ECONOMICS

J. Taylor Sims ..... Dean

BUREAU OF BUSINESS AND ECONOMIC RESEARCH

John E. Gnuschke ..... Director
James McFadyen ..... Managing Editor
B. Lewis Alvarado ..... Research Assistant
Shirley J. Stanphill ..... Research Editor

CONTENTS

Volume VI, Number 2 April 1986

SOME EVIDENCE OF HOW INFLUENCERS OF MARKETING DECISIONS HAVE BROADENED OVER TIME 3
C. Glenn Walters, D. Wayne Norvell, and Patricia E. McIntyre

IMPACT OF GOAL CONGRUENCE ON THE ACCOUNTANT 8
Letricia Gayle Rayburn

EFFECTS OF INFLATION ON AFTER-TAX PRESENT VALUES WHERE COSTS ARE CAPITALIZED 11
Steven H. Bullard and W. David Klemperer

TRENDS IN INDUSTRIAL CONCENTRATION, 1947-1977, AND THE BAIN INDUSTRIAL CLASSIFICATION SYSTEM 14
Anthony J. Greco

CURRENT STATUS OF THE UTILIZATION OF OFFICE TECHNOLOGY IN MEMPHIS AREA BUSINESSES 19
Janis C. Leggett and Lillian H. Chaney

THE SOUTHERN CITY REVIEW 23

The MID-SOUTH BUSINESS JOURNAL is published quarterly by the Bureau of Business and Economic Research, Memphis State University, Memphis, Tennessee 38152, in the months of January, April, July, and October, as a service to the business community. Second-class postage paid at Memphis, Tennessee. POSTMASTER: Send address changes to Bureau of Business Research, Memphis State University, Memphis, Tennessee 38152.

The opinions expressed in the authored articles are not necessarily those of the Bureau, the College, or the University, but are the responsibility of the individual authors. The material may be reproduced without permission if acknowledgment of the source is given.

An Equal Opportunity/Affirmative Action University PS 3/86-1389

SOME EVIDENCE OF HOW INFLUENCERS OF MARKETING DECISIONS HAVE BROADENED OVER TIME

*C. Glenn Walters, D. Wayne Norvell, and Patricia E. McIntyre**

Introduction: The Importance of Consumers

The importance of the consumer to business firms has been recognized for decades, although this emphasis has changed somewhat over time. Perhaps the oldest citation of the importance of consumers to businesses was made by Adam Smith in 1776 when he stated, "The sole purpose of production is consumption and any attempt to prove it would be absurd."[1] More recently, Peter Drucker (1954) emphasized consumer importance when he stated, "There is only one valid definition of business purpose: to create a customer. It is the customer who determines what a business is."[2] Early marketing textbooks emphasized the satisfaction of the consumer with little regard toward profit. Converse and Huegy (1946) stated, "Business functions to satisfy the needs of the consumers. The first measure of the success of any business is how well it serves the consumers. If an operation is not in the interests of consumers, it is not justified, no matter how profitable it may be to its owners. He profits most who serves best."[3]

In modern marketing thought, three basic elements exist in the marketing concept, including a profit orientation. These include (a) a customer orientation in which consumers' needs, wants, and behaviors should be the focal point of all marketing action; (b) a combined effort in which an emphasis is placed on the integration of the marketing function with research, product management, sales, and advertising; and (c) a profit direction in which the intention is to make money for the company.[4] As can be seen from the above definitions, the marketing concept changed from being one strictly consumer-oriented to one that also considered the profit motive. After the profit motive was added, it was only a matter of time until other factors such as natural resources and social influences were considered important.[5] The addition of these other factors did not mean that the consumer was not important, only that the consumer should be one of several factors that influenced marketing strategy.

Problems Associated with Emphasizing the Consumer

Although the importance of consumers should be recognized, too much emphasis on consumers may cause several problems for a firm. First of all, problems may develop when a firm emphasizes the importance of the consumer over profits. According to Cox and Norvell (1973), by not having a profit motive there are no economic criteria with which to measure performance. This produces problems for the firm because it has no objective way in which to measure success. Secondly, a firm that attempts to satisfy the diverse demands of its consumers may find it unprofitable to further segment the market, especially when the law of diminishing returns becomes operative. Consumers may also experience confusion as their ability to make comparisons among a proliferation of products diminishes. Finally, consumers may be associated positively with the occurrence of certain internal and external problems frequently encountered by firms, including internal organizational stress, government regulations, and environmental problems.[6]

For these reasons, the marketing manager must be concerned not only with the consumer, but with other groups in the environment. This article deals with the external environment and its impact on marketing decision making. Practical suggestions are made for integrating external groups into the mainstream of marketing decision making.

The Environment as Uncontrollable

In addition to the problems of emphasizing the consumer over all other external groups, another major problem involves the belief that the external environment is a

**The authors are, respectively, Dean, College of Business Administration, Nicholls State University, Thibodaux, Louisiana; Head, Department of Marketing, Kansas State University, Manhattan, Kansas; and Ph.D. candidate, Department of Marketing, Kansas State University, Manhattan, Kansas.*

constraint and is uncontrollable.[7] McCarthy (1982) stated that the marketer works with controllable variables (product, place, promotion, price) within a framework involving many uncontrollable variables (cultural and social environments, political and legal environments, economic and technological environments, competitive environments, resources, and objectives of the firm) which must be considered even though the manager cannot control them. The groups in the environment are believed to have only a weak effect on marketing policy, and marketing is seen as having no effect on the environment. The marketer simply adjusts the product, price, promotion, or method of distribution according to perceived environmental constraints. The environment does not exert direct pressure on the firm to change marketing behavior, and marketing does not influence the environment.

Viewing the Environment as Controllable

Recently, some researchers and academicians have changed their minds concerning marketing's influence on the environment. Kotler (1984) in *Marketing News* stated, "I now believe that marketers can influence the environment in which the firm operates and do not simply have to accept and adapt to it."[8] He suggested that there are six Ps, with political power and public opinion formulation added to the traditional four. Zeithaml and Zeithaml (1984) also believe that "marketing is a significant force which the organization can call upon to create change and extend its influence over the environment."[9] They provided three different types of environmental management strategies which include: independent strategies (i.e., competitive aggression, competitive pacification, voluntary action, dependence development, political action, smoothing, demarketing, public relations, and legal action); cooperative strategies (implicit cooperation, coalition, contracting, co-optation); and maneuvering (domain selection, diversification, merger, and acquisition).

Recommendations for Environmental Integration

Because of the importance of the environment, a new approach to marketing management should be taught which makes it possible for executives to deal with the environment in a conceptually sound and practical manner. The approach must overcome past misconceptions and recognize that government, suppliers, social groups, and competition:

1. Have considerable impact on marketing decisions, just like consumers,
2. Affect every marketing decision,
3. Are important to both large and small firms, and
4. Must be coordinated routinely into decision making rather than employed on a hit-and-miss basis.

This was clearly evident in the authors' personal interviews with 100 marketing executives in regional and national firms in Louisiana, consisting of 49 service and 51 manufacturing firms. The results indicated that executives believed consumers to be the most important external group in the areas of purchase policy (44.3 percent), product policy (49.0 percent), channel policy (40.0 percent), price policy (36.8 percent), and promotion policy (55.8 percent). But, other external groups (government, special interest groups, competitors, suppliers) were important in decision making. (See Table 1.)

Table 1

HOW MARKETING EXECUTIVES PERCEIVE THE IMPORTANCE OF EXTERNAL GROUPS ON MARKETING DECISIONS
(In Percents)

External Groups	Purchase Policy	Product Policy	Channel Policy	Price Policy	Promotion Policy
Government	5.8	11.0	10.3	9.4	9.3
Special Interest Groups	6.0	3.5	5.5	5.7	9.1
Consumers	44.3	49.0	40.0	36.8	55.8
Competitors	14.5	20.3	18.0	31.0	19.9
Suppliers	29.5	16.3	26.3	18.8	6.0
	100.0	100.0	100.0	100.0	100.0

It is apparent from the above results that a total integration of environmental variables into marketing strategy is necessary. This integration is a big task. It requires rethinking the traditional understanding of marketing. There are certain types of corrective measures that marketing managers should consider. First, the attitudes of managers must be modified to recognize the importance of all internal and external variables which affect marketing decisions. Second, management must learn to respond to each environmental influence in proportion to its effect on a firm's objectives. Third, the seemingly reactive approach most managers currently use in relating to the environment must be changed to a proactive one. Fourth, adjustments in a firm's organization must be instituted to facilitate marketing decisions which consider all environmental influences.

The Importance of External Groups - A Situational Orientation

The first step in dealing effectively with the environment is for marketers to understand the importance of "other" external groups, in addition to consumers, as influencers of marketing decisions. The manager's attitude must be changed from a consumer orientation to a situational orientation. A *situational orientation* is defined as a response (persuasive, neutral, reactive) to owners, buyers, resource suppliers, government, social groups, and competitors in proportion to the importance of each group in a given situation. This change in attitude elevates external groups to the level of consumers in their effect on the firm *without de-emphasizing consumers*. A situational orientation impresses upon the manager the need to consider all factors which are relevant to a given decision. Thus,

consumers are not the only environmental group with needs, and they are not the only group to which marketing managers must respond. Figure 1 shows that the marketer should respond to the interests of identified persons within each of the five external groups. Thus, the target group shown in the center of the model is composed of identified persons from among each of the five groups in the outer circle.

Figure 1

SITUATIONAL ORIENTATION

Each external variable (market environment, social and cultural environment, etc.) can be identified with specific groups of people (i.e., buyers, special interest groups) as shown on the outer circle of the diagram. For example, use of natural resources is achieved through suppliers, social and cultural rewards and sanctions are implemented through special interest groups, and legal and ethical considerations result from government action.

Marketing is people oriented and is neither "things" nor "ideology" oriented. People can be influenced, and marketers direct their efforts toward people. Even the physical environment can be influenced by people. For example, marketers purchase protection from insurers against natural disasters, they hire contractors to build stores and enclosed malls to encourage buying in bad weather, and they build good relations with suppliers of natural resources to ensure inputs necessary to operate. The same sales presentation which appeals to customer wants can appeal to special interest groups, suppliers, and government officers while forestalling competitors.

The identified target group is selected by the marketer because it has common wants or interests which can be appealed to. The target is a composite of persons from within the external groups, and persons are more or less important to this target depending on the particular decision considered. Consumers and competitors may be more important when management is designing an advertising campaign or identifying its sales potential. Government may be more important at tax time or when attempting to forestall foreign imports. Suppliers may be more important in times of resource shortages. However, all five groups must be reasonably satisfied because the appeal is to a common want or interest. It is this emphasis on a common interest that makes the marketer's task manageable in a complex environment. For example, an ideal product is one that is wanted by buyers, socially acceptable to special interest groups, competitive, legal, and justified in its use of supplier resources. In this way, each firm satisfies some portion of all external groups simultaneously.

Marketers attempt to achieve organizational objectives by controlling, through influence, the attitudes and/or behavior of identified suppliers, buyers, governments, competitors, and special interest groups. The marketer supports the behavior of persons within external groups that is consistent with organizational objectives and attempts to change behavior that is not.

The Importance of Responding Proportionally

The second step in dealing with the environment concerns the manager responding proportionally. Although every external group is important, it is typically not necessary for the seller to maximize benefits to each group for every marketing decision. Intelligent management responds *proportionally* to the multiple needs and pressures of environmental groups when formulating policies. Problems develop for the marketer when there are conflicts between the firm and external groups or among external groups. Such conflicts make it necessary to compromise among the groups which the firm serves.

Although every external group is important to the marketer, the one that exerts the most pressure typically fares better in the compromise. Marketers reduce prices and drop or add products based on consumer pressure as indicated by sales. Social pressure caused the cigarette industry to place warnings on packages and modify their promotion. Government has forced some products such as unsafe toys, saccharin, aerosol cans, etc., off the market, and it has forced modification of others.

The Importance of the Manager's Proactive Response

The third main step in dealing with the environment concerns a manager's proactive response. The marketer's response to external needs or requirements should not be merely reactive. Marketers can and should do something about the environment. Even as external groups exert pressure on marketers to support their requirements, these managers are exerting influence on the environment to achieve the firm's profit objectives. The policies and plans undertaken by marketers are proactive and are designed to affect the attitudes and behavior of external

groups. Recognition of this fact leads to an expanded statement of marketing strategy. Marketing strategy is defined as simultaneously identifying potential buyers and specific environmental groups whose needs affect the organization, then developing a marketing mix (policies) relative to the importance of each group in order to influence their attitudes and behavior toward the firm's profit or survival objectives. Marketing strategy under a situational orientation consists of two non-sequential steps:

1. Selection of a target sector (buyers, competitors, government, social groups, resource suppliers), and
2. Development of a marketing mix (product, place, promotion, price policies).

In short, the marketer assesses the total environment and develops a marketing mix accordingly. The fact that external groups can be influenced means that the attitudes and behavior of government, social groups, competitors, and resource suppliers can be managed in the same way that marketers have historically managed consumers.

Both large and small firms must be concerned with environmental management on a routine, daily basis. The only difference between their interests lies in the scope of the effort. Local firms may be routinely involved with influencing buyer choice, zoning laws, wage scales, unionization, taxes, property values, store hours, local opinion, law enforcement, highways and streets, etc. Along with local issues, national corporations may routinely develop policies to influence large market segments, federal legislation, regulatory agencies, government contracts, corporate taxes, tariffs, interest rates, foreign and national competition, national opinion, etc.

These routine policies instituted by large and small firms to affect the environment may be supplemented by special efforts designed to achieve specific short-term objectives. For example, lobbyists can be employed at the local, state, or federal levels to work for or against particular legislation. Management can support political candidates favorable to business through contributions, campaign work, and fund raising. Routine policies and special efforts designed to influence the environment should be coordinated for best results.

The Importance of Adjustments in the Firm's Organization

The fourth major step in dealing with the environment involves adjustments in a firm's organization. Organizational changes must parallel changes in management attitude before the firm can effectively deal with external groups. In an organizational sense, departments which interface with external groups are scattered throughout the business. Departmental officers are frequently only vaguely aware of each other's responsibilities. Yet, all of these departments share a common interest in external groups. Although changing the department's basic mission is not suggested, some way must be found to coordinate environmental policy into overall company strategy.

How these organizational problems are handled will vary with individual firms. Each company's unique departmental arrangement must be accommodated. However, as a general guide two approaches come to mind. They are: (1) establishment of a new department, and (2) inclusion in an existing marketing department. First, a new environmental department under the marketing vice-president may be established. This approach leaves the separate departments in place organizationally to perform their basic corporate missions. Managers in the environmental department receive information from the functional departments, develop and coordinate all external policies, and oversee the implementation of plans. This approach is perhaps best suited for larger companies.

Second, all environmentally-related planning can be centralized under an existing marketing department. This solution can be made to work in smaller companies where legal, consumer affairs, and marketing staffs are small. Departments which are logical candidates include public relations, promotion, or sales.

Both of these suggested approaches place the environmental interface under the responsibility of marketing. Marketing is the function within an organization most directly responsible for external interaction. Marketing is already responsible for competitive buying and purchasing policies. Furthermore, marketing is directly involved with social groups and governments. Thus, marketing appears to be the logical functional area of the firm able to deal with all external groups. Placement of environmental interaction under marketing should make the integration of the environment into overall business strategy simpler and more complete.

Summary

There are no guarantees of success for marketing managers. However, the odds improve if the manager deals with the situation in realistic terms. The view of scholars and practitioners that environmental groups are relatively unimportant and uncontrollable tends to cause managers to either take these groups for granted or to simply react to existing conditions. Both moves can lead to trouble for the firm.

It is argued in this article that the external environment must be fully integrated into marketing strategy and given adequate attention for all decisions. Marketers must be shown that buyers, competitors, government, social groups, and resource suppliers all affect the firm's operations on an equal basis. The manager must evaluate which ones affect a given decision and respond proportionally to these. The response must be positive and should be designed to manage the attitudes and behavior of external groups. In this way the manager greatly improves his/her chances of making the correct decision.

FOOTNOTES

[1]Adam Smith, *Wealth of Nations* (New York: Collier & Son, 1909).

[2]Peter Drucker, *The Practice of Management* (New York: Harper and Row Publishers, 1954), pp. 37-38.

[3]P. D. Converse and H. W. Huegy, *The Elements of Marketing* (New York: Prentice-Hall, Inc., 1946), p. 21.

[4]Martin Bell and C. Emory, "The Faltering Marketing Concept," *Journal of Marketing*, October 1971, pp. 37-42.

[5]Wayne Norvell, "Changing Attitudes Toward Consumer Orientation in Making Marketing Decisions," *Pittsburgh Business Review*, June 1977, pp. 7-10.

[6]John C. Cox and D. Wayne Norvell, "Consumerism, Corporate Profits and the Marketing Concept" (Unpublished paper presented at Marketing Section - Public Policy No. 1 Session of the Southwestern Social Science Association 1973 Annual Meeting).

[7]E. Jerome McCarthy and Andrew A. Brogowicz, *Essentials of Marketing* (Homewood, Illinois: Richard D. Irwin, Inc., 1982), pp. 33-34.

[8]P. Kotler, "Rethink the Marketing Concept," *Marketing News*, September 14, 1984, pp. 1, 22, 24.

[9]C. Zeithaml and V. Zeithaml, "Environmental Management: Revising the Marketing Perspective," *Journal of Marketing*, Spring 1984, pp. 46-53.

IMPACT OF GOAL CONGRUENCE ON THE ACCOUNTANT

*Letricia Gayle Rayburn**

Researchers such as Parker (1) question whether the accountant's concept of goal congruence should be discarded. Traditionally, accountants have assumed that the top manager passed down corporate goals because the organization, being a non-person, cannot have goals. Instead, the corporate goals really reflect the views of the dominant group, which is the executive management group. Because profit maximization has been the economic model's goal and the basis of scientific management and traditional management accounting, accountants have treated the budget as the significant determinant of both short-run and long-run corporate goals.

Profit Maximization

Profit maximization is not the only organizational goal, because people do not always act rationally and certainly. The model of a rational person pursuing maximum profits in a world of certainties is not an appropriate basis for an accountant's view of organizational goals. Rather than companies having one dominant goal of profit maximization, organizational goals embody a group of goals which are derived from management as well as other personnel; satisfactory profit is only one component of this goal set. It is recognized that in order to survive, companies must produce goods and/or services and sell them at a price which recovers all costs and yields and adequate return on invested capital.

Organizational goals can be viewed as a group of objectives which have been derived from various individuals and groups within the firm. Business firms are not units completely controlled by top management who require subordinates' allegiance for their efficient functioning; instead, the organization is a coalition of individuals and groups of which top management is a part, admittedly, an important and powerful part. Other groups, such as labor unions, may also impact the goal formulation process. Rather than goals being developed by top management and handed down as policy rulings, accountants should view overall goals as being derived from the aspirations of the members involved, including top management.

However, no matter who has actually established the goals, a company must formalize them or it will be difficult for employees to know what is expected of them. Since goals must be expressed in a manner to which employees and other participants can relate, organizational goals must be expressed in tangible terms. These goals often are reflective of past activities. Cost accountants can assist in the process of establishing goals by providing historical financial data as well as cost forecasts. They then aid management by establishing cost controls and preparing timely reports on how these goals are being met.

Goal Setting

Hall (2) admits that the term goal is ambiguous, because there are goals of an organization which are held by the dominant coalition within the organization, and there are goals for an organization which are held by employees and members of the environment which has influence on the organization. Hall summarizes the process and methods of goal setting into three different models: bargaining model, problem-solving model, and dominant coalition model.

The bargaining model assumes there are numerous participants, each holding conflicting goals within an organization. In order to achieve their goals, individuals negotiate with each other, making tradeoffs until a satisfactory array of goals is agreed upon. Compromises are used by the organization's members in an attempt to achieve various goals, but sometimes these compromises may not be consistent with the organization's policies or available resources.

Under the problem-solving model, goals are used as a set of constraints within which courses of action are taken. This model assumes that policy commitments are made within a set of constraints which are known to the decision maker. Further, the constraints can be ranked and a preferred set accommodated. Finally, the problem-solving model assumes that the goals of different individuals or groups can be satisfied simultaneously. This model makes clear that the administrative hierarchy makes the major

**Professor of Accountancy, Memphis State University, Memphis, Tennessee.*

decisions even though outsiders may informally influence these decisions.

The dominant coalition model assumes that the many groups of individuals making up an organization do not have sufficient power to act unilaterally. Thus, collective behavior or a kind of coalition is necessary to achieve the organization's goals. These coalitions result in a commonly agreed on goal which the individuals pursue. Control is shared among the coalitions, and during the decision process mutual agreement is required.

Goal Congruence

The accounting system should encourage and guide all levels of management to achieve overall organizational goals. To do this, company goals must be broken down into subgoals for individual managers. These subgoals should be consistent with the company's overall goals. Such goal congruence is an ideal which is difficult to achieve, for individuals bring their own aspirations into the company and try to fulfill them as much as they can. Individual employees will adopt top management goals so long as the resulting benefits outweigh the required sacrifices. For example, an important personal goal of individual employees is to earn enough money to meet their family's physical and social needs. This may conflict with the goals of the company, because an employee's higher salary means lower company profits. In addition, managers may be interested in obtaining power and prestige by increasing their functional responsibilities and the number of employees reporting to them, as well as engaging in creative endeavors.

Unitary vs. Pluralist View

Traditionally, accountants have felt it their responsibility to encourage goal congruence within their organization. This view reflects the idea that employees are loyal servants and readily accept and recognize management's authority. Instead of focusing attention and effort toward encouraging personnel to adhere to top management objectives, accountants will operate more realistically by viewing the organization in pluralistic terms rather than in unitary terms. Under the pluralistic view, a company represents a coalition of individuals and groups, each attempting to express his own aspirations within the enterprise's structure. Progress toward completing corporate goals is achieved only because individuals agree to cooperate in order to fulfill, to some degree, their own separate goals. Those company goals which are stated or implied are adopted by corporate participants only if the related personal sacrifices are less than the expected benefits.

The contingency theory of organizations expresses the philosophy that corporations are composed of many subsystems whose interrelationships have to be recognized. Since there are so many variables, effort is made to find the most effective combination for a given situation. The expectancy model is based on the contingency philosophy according to Vroom (3). The model states that individuals are motivated to perform because they have goals which an organization can satisfy by providing extrinsic and intrinsic rewards. Individuals compute two expectancies which indicate the likelihood of a given level of effort resulting in high performance and the performance providing them with the desired rewards. The higher these likelihoods, the more motivated individuals will be to perform at a high level.

Goal Congruence and Budgets

Operating under the idea that profit maximization is the single goal leads to treating corporate budgets as the method of minimizing costs. However, the budget is merely a bargaining device by which individuals and groups within the organization attempt to satisfy their own needs and aspirations while operating within the constraints imposed by the company. Mintzberg's (4) position is that the budgeting game is a subset of empire building in which the object of the game is to get more positions, facilities, and money. Successful accountants realize that the budgeting process results in open bargaining as participants engage in politics in an attempt to satisfy their own aspirations. Tricks of the budgeting game include: (1) always asking for too many resources with the knowledge that the budget request will be cut, (2) distorting the truth about the unit's real needs, (3) evoking all available rational arguments supporting a large budget and ignoring others, (4) making certain all money is used up at year-end even to the point of wasting it, otherwise next year's budget will be cut by the amount of the leftover.

Dominance of a Single Goal

While dominance of any single goal, whether it be service or profit maximization, is not realistic, this writer agrees with Litterer (5) that a need exists for some all-encompassing goals to which action can be directed. Litterer recognizes the pluralist view of the organization when he illustrates the idea of goal congruence by stating the case of three men, who for different reasons wish to cross a river. They combine their efforts to row the only available boat across. Rowing the boat becomes the overall objective of the men while also the means of attaining their own individual goals. A coalition similar to that is formed in modern corporations in order for employees to achieve their separate aspirations.

Tradeoffs

Individuals and departments within the organization never completely satisfy their demands; instead, they direct attention to a small portion of these demands at any specific time period and accept cost tradeoffs. For example, the marketing department may wish to design a product to meet a specific customer's requirements, while the engineering department believes standardization of product design is the optimum solution. These two conflicting

objectives must be modified to reach a satisfactory solution. Likewise, while the company may wish to produce the highest quality product possible, it may find that the sales price required to cover all costs and yield an adequate return on capital would be so much higher than that for comparable products that it might not sell at an adequate volume. In this circumstance, the company trades off quality for price; that is, management reduces the quality and the cost of producing the product so the goods can be sold at a lower price and an adequate sales volume. Cost tradeoffs also occur when an inventory level is chosen. Management may decide that it is desirable to carry a large inventory of finished goods to reduce the risk of running out of stock and losing customers. Maintaining a larger inventory means incurring additional warehousing, insurance, taxes, and other costs associated with carrying increased inventories. The costs of maintaining larger direct material inventory levels must be weighed against the cost of running out of these materials, and thus interrupting the production flow.

Discard Goal Congruence

To ignore and discard goal congruence is dangerous for corporate survival. A degree of goal congruence is a prerequisite for success; otherwise, all participants within the organization will be "going their own way," disregarding any needed overall direction. Instead, accountants may need to redefine their concept of goal congruence and the budgeting process to include more flexibility. Rather than view the budget strictly as a control device, accountants should accept the premise that budgets reflect a negotiating process as each participant strives to satisfy individual goals while at the same time recognizing that long-run success requires giving up some short-run gains. For example, an employee may wish to fulfill his economic needs and gain recognition from his peers with as little effort as possible. Yet, he recognizes that if all employees are allowed to do this, productivity will decline to such an extent that the company will not be financially able to remain in business. Thus, employees bargain for their goals, giving up or modifying some goals while trying to retain those goals seen as most desired. Top management, representing both their own individual goals and the company's interest, also negotiates until an environment is reached in which there is opportunity for all to satisfy, to some extent, these goals. If this environment is not reached, further "jockeying" occurs until a satisfying state is reached or some participants and/or the corporation leave the picture.

Conclusion

Rather than have one dominant single goal, there are more likely to be numerous operating subgoals which are constantly changing and from which overall goals are derived. In view of this, it may be difficult for the accountant to determine what the real overall goals for the enterprise actually are, because top management may hand down what they inaccurately consider are the goals when, in reality, they only reflect what top management is individually aiming for. Thus, the accountant may not know if an action is congruent or not. To help overcome these problems while also recognizing that goal congruence is difficult to achieve, managers should carefully explain the company goals so employees can better understand their responsibility in achieving these goals. Managers should try to establish company goals so that employee goals are satisfied at the same time. The company's objectives should be stated in such a way that employee performance does not conflict with top management's goals.

REFERENCES

1. Parker, Lee D. "Goal Congruence: A Misguided Accounting Concept," *Abacus*, June 1976, 3-13.
2. Hall, Francise S. "Organizational Goals: The Status of Theory and Research," in J. Leslie Livingston (Ed.). *Managerial Accounting: The Behavioral Foundations*. Columbus, Ohio: Grid, 1975.
3. Vroom, V. H. *Work and Motivation*. New York: Wiley, 1964.
4. Mintzberg, Henry. *Power In and Around Organizations*. Englewood Cliffs, N.J.: Prentice-Hall Publishers, 1983.
5. Litterer, J. *Organizations: Structure and Behaviour*. New York: Wiley, 1963.

EFFECTS OF INFLATION ON AFTER-TAX PRESENT VALUES WHERE COSTS ARE CAPITALIZED

*Steven H. Bullard and W. David Klemperer**

Introduction

Business investments often span periods of time with significant inflation. If taxes are not considered, inflation can be ignored in computing the present value of future net income. Inflation should not be ignored, however, in *after-tax* analyses of rates of return or net present values of potential investments. Inflation affects the present value of business costs which are capitalized for tax purposes, and the influence must be considered for present value calculations to be accurate.

After-tax analyses must include the tax savings which result from being able to deduct business-related costs from taxable income. Costs which are expensed, of course, are deducted entirely in the tax year in which they are incurred. Capitalized costs, however, are deducted later through depreciation, depletion, or as in the case of land, simply by deducting initial costs when the land is sold. After-tax present values where investment or business costs are capitalized are simply present values after taxes have been accounted for, where all or a portion of the costs are capitalized for tax purposes. In such analyses, present values are decreased by inflation. After reviewing the most relevant previous work, the nature and potential degree of this decrease and its relationship with investment period length were examined.

Review

In analyses where taxes are not considered, present values are equivalent whether or not inflation is included. Business decisions based on pre-tax present net values are not affected by inflation since the terms simply cancel out of the present value expression. If a certain income, for example, is expected in year n, when discounted with a real interest rate, the present value is found simply by dividing the future income by the compound interest factor $(1 + r)^n$, where r is the real or uninflated interest rate. If, however, the present value is calculated in inflated terms, both the income and the discount factor are multiplied by the inflation factor.

The two present values are equivalent since inflation simply cancels out of the expression (Gregersen [1], Hanke et al. [2], Harou [3]). Nelson [5], however, showed that present values with and without inflation are not necessarily equal when taxes are considered. Klemperer [4] showed that, after capital gains taxes, present values decline with increasing inflation. Here his results are generalized to include *all* capitalized costs; note that the decline increases, reaches a maximum, and decreases as the investment period is lengthened. The effect of inflation may be significant or may be trivial, depending on all the economic parameters in the present value analysis. Business decisions based on present value analyses should consider this influence. Investments are less attractive on an after-tax basis when inflation occurs, and if inflation is ignored, poor investment decisions may result.

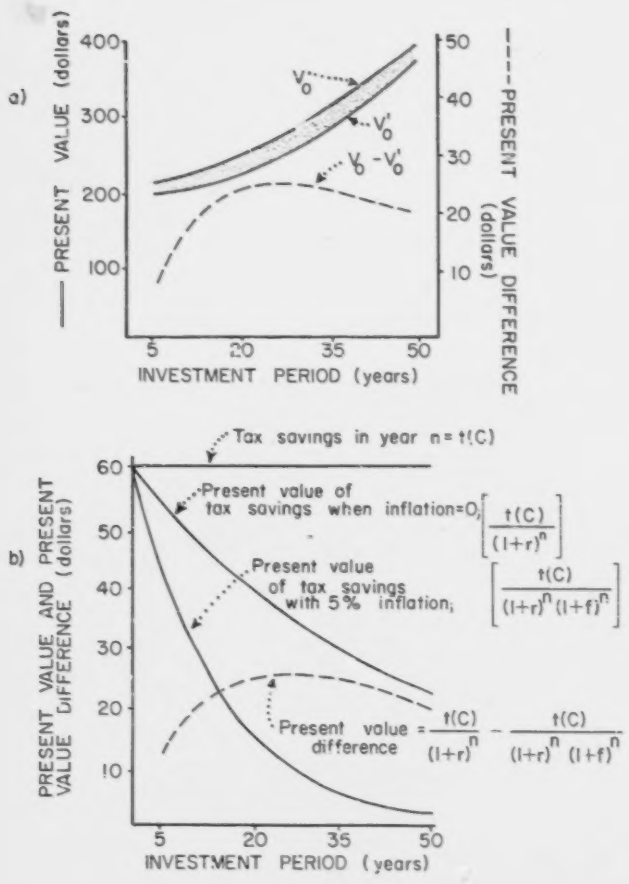
Effects of Inflation

The impact of inflation on after-tax investment decisions can be derived in two ways. Each is illustrated for an example in Figure 1. The example is for an initial cost of $200, a tax rate of 30.0 percent, a real discount rate of 2.0 percent, inflation rates of 0 and 5.0 percent, and a real rate of appreciation for the investment of 4.0 percent. Figure 1a shows V_0 as the present value of the investment when inflation is 0 percent, and V_0' as the present value when inflation is 5.0 percent. V_0 minus V_0' is the difference between the two and is also plotted in Figure 1a.[1]

Figure 1b derives the present value difference by showing the tax savings from being able to deduct the costs from future income with and without inflation. Deducting costs from taxable income represents tax

**The authors are, respectively, Assistant Professor of Forest Economics, Mississippi State University, Mississippi State, Mississippi; and Associate Professor of Forest Economics, Virginia Polytechnic Institute and State University, Blacksburg, Virginia.* *Paper number 5813 of the Mississippi Agricultural and Forestry Experiment Station.*

Figure 1. Example Present Values and Present Value Differences



savings of t(C) in the year the deduction is made (n). Since by current law the basis cannot be inflated, the future tax savings are constant in nominal terms and should be discounted at a nominal interest rate. When inflation is zero, however, the savings are discounted at a real rate, thereby yielding a higher present value for the tax savings. The present value difference in Figure 1b is identical to the expression for $V_0 - V_0'$ in Footnote 1, yet is derived merely from the present value of tax savings in year n.

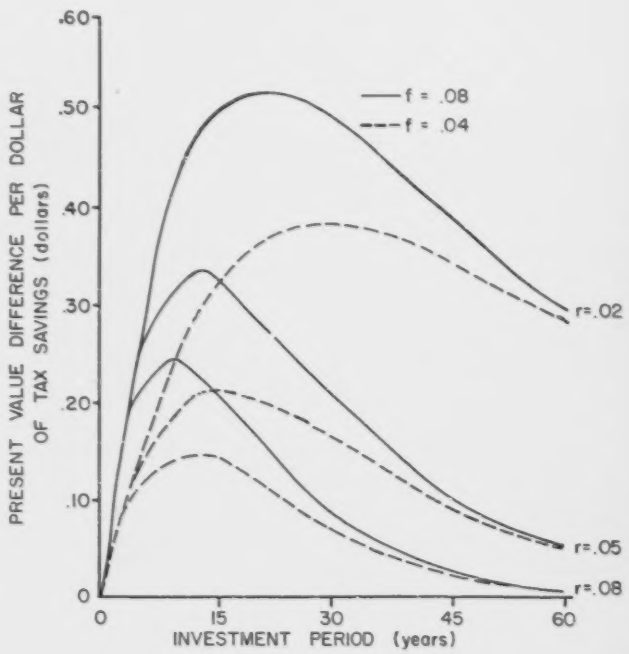
The primary result is that the present value difference is positive when inflation is positive. This means that present values are lower when inflation occurs, in *any* analysis where initial costs are capitalized. Ignoring inflation can, therefore, result in accepting bad investments, since present values may be positive without inflation but negative if inflation is considered.

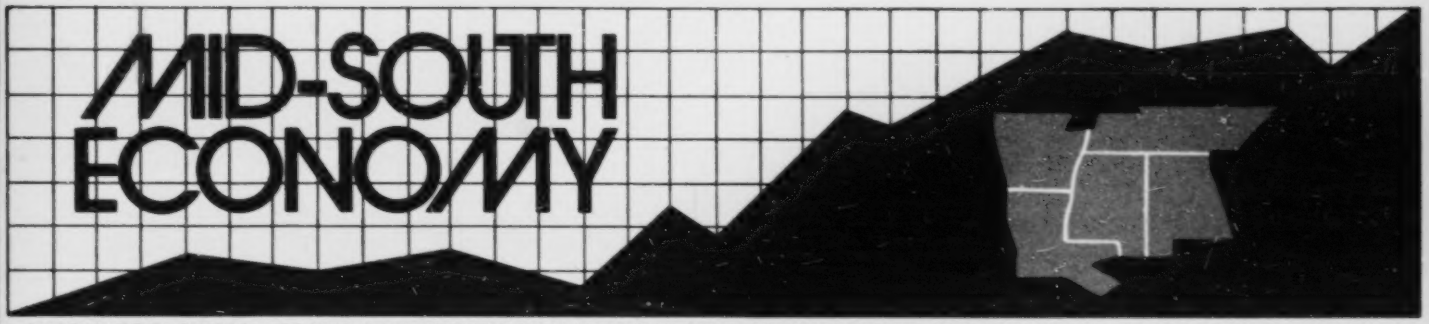
The present value reduction from inflation applies to any situation in which business costs are deducted (in whole or in part) after an inflationary period. In periods of positive inflation, present values calculated with zero inflation (or underestimated inflation) will be too high in *any* analysis with capitalized costs. For any combination of tax rate and discount rate, the difference increases with the rate of inflation and the deducted basis. The difference increases with the tax rate and is completely independent of total income in year n and the rate of return generated by the investment (see Figure 1b). The investment period, however, does affect the degree of error and is considered below in more detail.

Investment Period and After-Tax Present Values

When adding inflation to after-tax analyses with capitalized costs, the reduction in present value increases, reaches a maximum, and decreases with n, the investment period. The influence of time on the present value reduction depends on the rate of inflation and the real rate of discount. Present value differences *per dollar* of tax savings are plotted in Figure 2. They increase, reach a maximum, and decrease for longer investment periods. Differences are greater with higher inflation and lower discount rates, and for any given combination there is an investment period which results in the maximum difference (Table 1). If r = .02 and f = .02, for example, differences increase until n = 35. Although the bias from omitting inflation is greater with higher inflation, the point of culmination for $V_0 - V_0'$ decreases with f (Figure 2 and Table 1).

Figure 2. Present Value Differences Per Dollar of Tax Savings for Inflation Rates of 4.0 and 8.0 Percent and for Real Discount Rates of 2.0, 5.0, and 8.0 Percent





BUREAU OF BUSINESS & ECONOMIC RESEARCH THE FOGELMAN COLLEGE OF BUSINESS AND ECONOMICS MEMPHIS STATE UNIVERSITY

STATISTICAL SUPPLEMENT

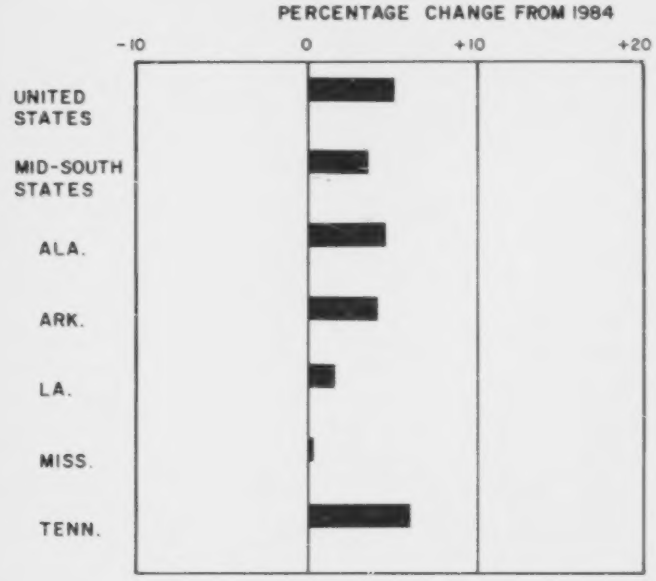
THE MID-SOUTH ECONOMY

Preliminary data for the first quarter of 1986 indicate that the national and Mid-South economies entered the new year on a somewhat hesitant note. The nation's total civilian employment declined at an annual rate of 0.4 percent from January to February after increasing at an annual rate of 8.6 percent from December 1985 to January 1986. Likewise, industrial production fell at an annual rate of 7.3 percent after rising 1.9 percent from December to January. As a result, the nation's unemployment rate in February climbed above the 7.0 percent mark after falling below 7.0 percent in December and January. Retail sales also remained sluggish in January and February, declining 1.5 percent since December. Across the Mid-South the number of persons unemployed fell 3.0 percent from January 1985, but an increase in the civilian labor force, primarily in Mississippi and Tennessee, caused the aggregate Mid-South unemployment rate to remain in double digits. For January 1986, the aggregate unemployment rate was 10.1 percent compared to the 10.5 percent rate a year ago. Alabama, Arkansas, and Tennessee registered significant declines in unemployment from January 1985, with Louisiana and Mississippi rates remaining in double-digit figures. Growth in total personal income across the Mid-South was mixed, with Tennessee the only Mid-South state which outperformed the national gain. The overall gain in the Mid-South was 3.5 percent compared to the national gain of 5.5 percent.

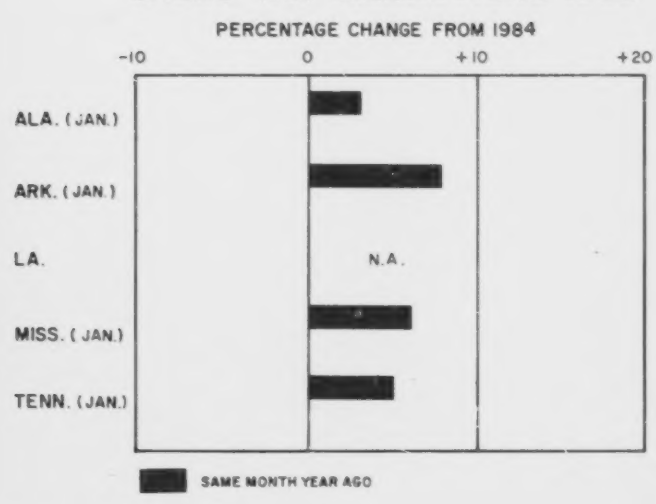
The major bright spot of the economy for the first two months of 1986 was inflation. The annual rate of increase in the Consumer Price Index fell in January and February, with producer prices, generally considered to be an indicator of future inflation, declining at an annual rate of 12.6 percent in January and 17.1 percent in February. Meanwhile, the price index for all items less food, energy, and shelter rose a modest 3.7 percent since January 1985. An additional positive sign for optimism concerning future inflation is the decline in oil prices. Since the OPEC price shocks of 1978, the real average cost of oil to refiners declined 35.7 percent between 1981 and 1985. Additional optimism can be found in the February 1986 forecast by the Congressional Budget Office (CBO). The CBO projects growth in the nation's real Gross National Product will be 3.2 percent in 1986 and 3.1 percent in 1987. The target deficit for fiscal 1987 is $144.0 billion, about 1.5 percent of the nation's output. The major concern about the Gramm-Rudman bill is that it could cause an abrupt shift in the expansion, temporarily slowing the expected economic expansion into 1987. And, declining oil prices are viewed as a mixed blessing in light of the current international loan payment situation.

Given the trends in the national economy thus far and the anticipated mix of strengths and weaknesses in the Mid-South economy, the economic outlook for the region is encouraging, on balance, with growth as good as, if not better than, last year. However, unemployment declines across the Mid-South are not expected to be uniform across industries or states, and there is still a danger that parts of the region will stagnate. Federal government decisions will have a major effect on the Mid-South economy in terms of exports and agricultural policy. The major unknown will be the response by state and local governments to cutbacks in federal funds as part of the deficit-reduction programs. Another major shift is likely to be a slowing of office building and multi-family housing construction. Alternatively, prospects for improvement are strongly anticipated for manufacturing and agriculture, primarily due to the benefits derived from a lower dollar value internationally. Alabama, Arkansas, and Tennessee are expected to match the growth nationally, with Louisiana and Mississippi underperforming the nation. Alabama industries expected to register gains in 1986 are state and local government, transportation-related manufacturing, and agriculture, with over half of Alabama's farm income being derived from livestock and poultry. Arkansas and Tennessee prospects will be tied to the demand for consumer goods, stimulating the manufacturing sectors, and a lower dollar value, helping both agriculture and manufacturing industries. Less optimistic is the outlook for Louisiana and Mississippi. Louisiana's economy is relatively undiversified and dependent on the less than favorable outlook for the energy sector. Increased tourism in Louisiana might help alleviate some of the problems.

PERSONAL INCOME - III QTR. 1985

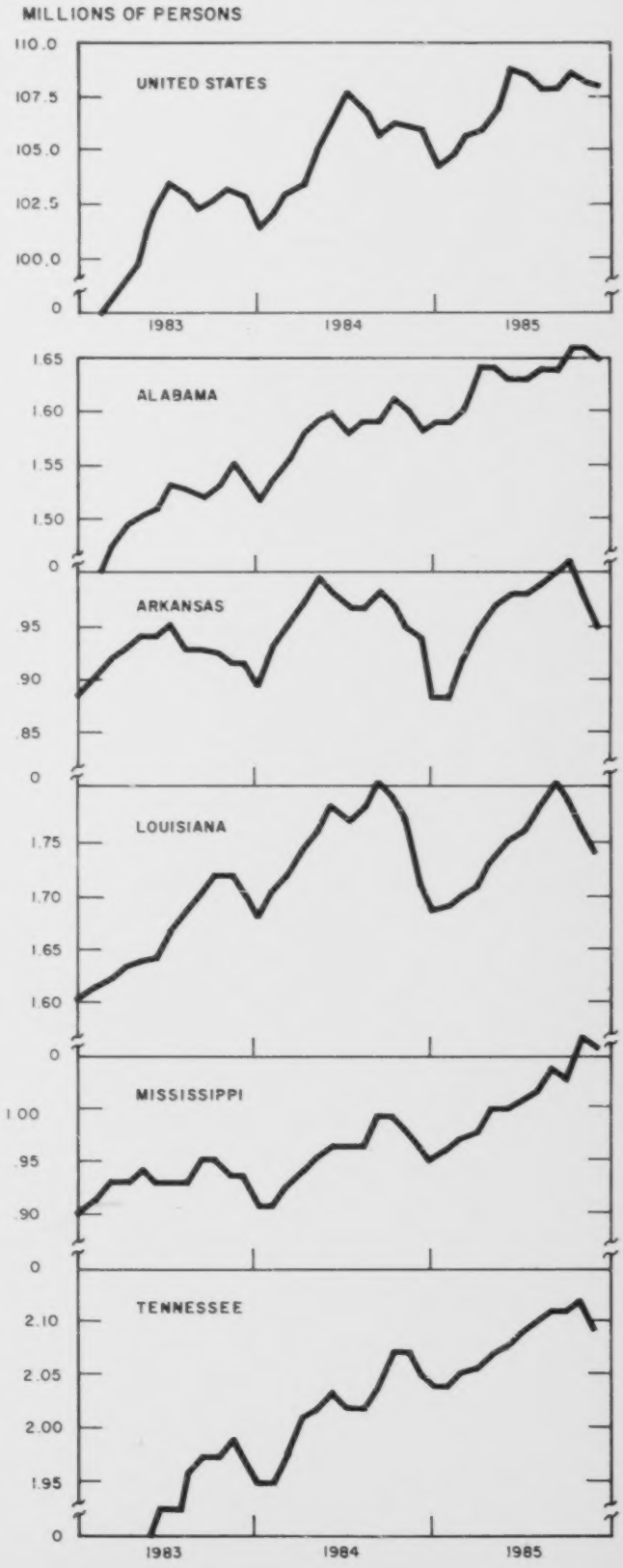


SALES TAX COLLECTIONS 1985



SOURCES. BUREAU OF ECONOMIC ANALYSIS
STATE DEPARTMENTS OF EMPLOYMENT SECURITY AND REVENUE.

TOTAL EMPLOYMENT



Mississippi, on the other hand, will be facing a difficult year due to the prospects of a stringent state budget and lower farm income since Mississippi's agriculture is heavily dependent on crops. Additionally, the current mix of manufacturing among textiles/apparel and lumber/furniture is a key area of concern with respect to foreign competitive pressures.

The outlook for agriculture is heavily dependent on the new farm bill, grain exports, and the lowering of farm debt. U.S. grain exports are anticipated to decline despite the recent decreases in the value of the U.S. dollar because world production is expected to be only slightly below record levels. Farmers' paydowns and writeoffs of bad debt are expected to reduce the volume of outstanding debt during 1986. But the dilemma created by lower crop loan rates under the new farm bill is that target prices likely will be higher to protect farmers' incomes, thus causing farm programs to become even more expensive.

LABOR

For the Mid-South, non-agricultural employment rose 2.1 percent from a year ago, led by a 3.1 percent gain in non-manufacturing employment. Manufacturing employment declined slightly, off 0.9 percent from last January. Durable goods manufacturing registered a 1.2 percent decline from a year ago, while non-durable goods remained unchanged at 643,100 workers. The prospects for improvements in the manufacturing sector are good, with new orders for manufactured goods rising in January and inventory levels remaining low. New orders for durable goods increased 2.6 percent from last January, and new orders of non-defense capital goods rose 3.9 percent. Finally, the Bureau of Labor Statistics reports that between 1968 and 1985, the proportion of employed workers who worked part-time rose from 14.0 to 17.0 percent. Women make up the majority of part-time workers, with two-thirds of the women being married with spouse present.

LABOR JANUARY 1986	United States	Mid-South States				
		Alabama	Arkansas	Louisiana	Mississippi	Tennessee
Civilian Labor Force	115,431,000	1,797,100	1,026,700	1,939,500	1,110,500	2,234,200
Percent Change Year Ago	+1.7	+ 0.9	+0.4	+ 0.2	+3.2	+1.1
Unemployed	8,472,000	163,200	101,100	237,300	123,700	191,000
Percent Change Year Ago	-7.2	-15.8	-8.1	+10.0	+0.7	-8.7
Unemployment Rate						
1985	7.3	9.1	9.8	12.2	11.1	8.5
1984	8.0	10.9	10.8	11.1	11.4	9.5
Non-Agricultural Wage & Salary Employees	99,635,000*	1,424,900	803,200	1,569,900	841,900	1,879,200
Percent Change Year Ago	+3.3	+ 2.3	+4.3	- 1.0	+2.9	+4.2
Manufacturing Employment	19,466,000*	353,500	209,700	170,300	223,400	482,200
Percent Change Year Ago	-0.7	- 0.2	+1.1	- 5.8	+2.2	-1.6
Non-Manufacturing Employment	80,169,000*	1,071,400	593,500	1,399,600	618,500	1,397,000
Percent Change Year Ago	+4.4	+ 3.2	+5.5	- 0.4	+3.1	+6.3
Average Weekly Earnings of Production Workers in Manufacturing	$393.41	$363.03	$313.10	$432.85	$298.49	$346.86
Percent Change Year Ago	+3.5	+ 8.2	+3.7	+ 1.3	+2.3	+3.5
Average Weekly Hours of Production Workers in Manufacturing	40.6	41.3	40.4	41.5	40.5	41.0
Percent Change Year Ago	+0.7	+ 2.7	+0.2	+ 0.2	-0.7	+0.2
Average Hourly Earnings of Production Workers in Manufacturing	$ 9.69	$ 8.79	$ 7.75	$ 10.43	$ 7.37	$ 8.46
Percent Change Year Ago	+2.8	+ 5.3	+3.5	+ 1.1	+3.1	+ 3.3

*Seasonally adjusted.

Source: Departments of Employment Security and Survey of Current Business.

CONSTRUCTION

The outlook for housing continues to be favorable; consumer confidence remains high, and mortgage rates are declining. Housing started strong in 1986, with January starts climbing above the 2.0 million annual rate mark, the highest level in seven years. Elsewhere, however, the National Association of Home Builders warns that 1987 budget proposals for Housing and Urban Development (HUD) would mean an 85.0 percent decrease in new budget authority for HUD between fiscal year 1980 and fiscal year 1987. New budget authority at HUD has fallen from $35.7 billion in 1980 to $14.8 billion in 1986.

Alabama and Louisiana registered declines in the dollar value of total building permits issued in 1985 compared to 1984, with Alabama's gains primarily in the residential sector and Louisiana's gains primarily in the non-residential area. Mississippi experienced a slight gain in building activity, also concentrated in the non-residential sector. Tennessee registered the best gains in the Mid-South, outperforming the nation in both residential and non-residential construction activity. Across the Mid-South region, however, the number of dwelling units permitted declined 7.7 percent over 1984 to an annual rate of 84,700 units. Mid-South construction employment gained 9,600 workers from January 1985, an increase of 3.2 percent.

FINANCE

Financial markets continue to respond to the prospects of continued low inflation and declining oil prices. Six-month commercial paper yielded 7.54 percent during February 1986, down from 8.69 percent a year ago. The stock market, as measured by the Dow Jones Industrial Average, continued its record-breaking momentum in February, climbing 25.7 percent since June 1985. In addition, commercial and industrial loans by U.S. commercial banks totaled $494.1 billion in January 1986, an increase of 5.2 percent over January 1985. The major

CONSTRUCTION[1] DECEMBER 1985	United States	Mid-South States				
		Alabama	Arkansas	Louisiana	Mississippi	Tennessee
Total Building Percent Change Year Ago	+12.1	- 0.3	N.A.	- 4.4	+ 1.1	+43.7
Residential Building Percent Change Year Ago	+11.7	+22.9	N.A.	-24.4	-12.5	+31.5
Non-Residential Building[2] Percent Change Year Ago	+12.7	-14.5	N.A.	+13.6	+22.0	+61.9
Total Dwelling Unit Percent Change Year Ago	+ 2.6	+17.0	N.A.	-33.1	-27.6	+ 7.6

[1]Twelve-month cumulative rate.

[2]Non-residential data exclude the cost of construction for publicly-owned buildings.

Source: The Federal Reserve Bank of Atlanta from data supplied by the Bureau of Census.

FINANCE JANUARY 1986	United States	Mid-South States	Alabama	Arkansas	Louisiana	Mississippi	Tennessee
Member Banks as of 1/1/86 Percent Change from Comparable Date 1984							
Total Deposits	+ 6.9	+ 3.7	+ 1.2	N.A.	+ 5.3	+ 4.3	+3.4
Demand Deposits	+ 6.6	+ 0.3	+ 4.8	N.A.	- 3.1	+ 5.2	-1.9
Time Deposits	- 0.1	- 0.4	- 2.3	N.A.	- 0.3	- 0.4	+0.6
Savings Deposits	+16.2	+15.5	+13.2	N.A.	+25.9	+12.8	+6.8

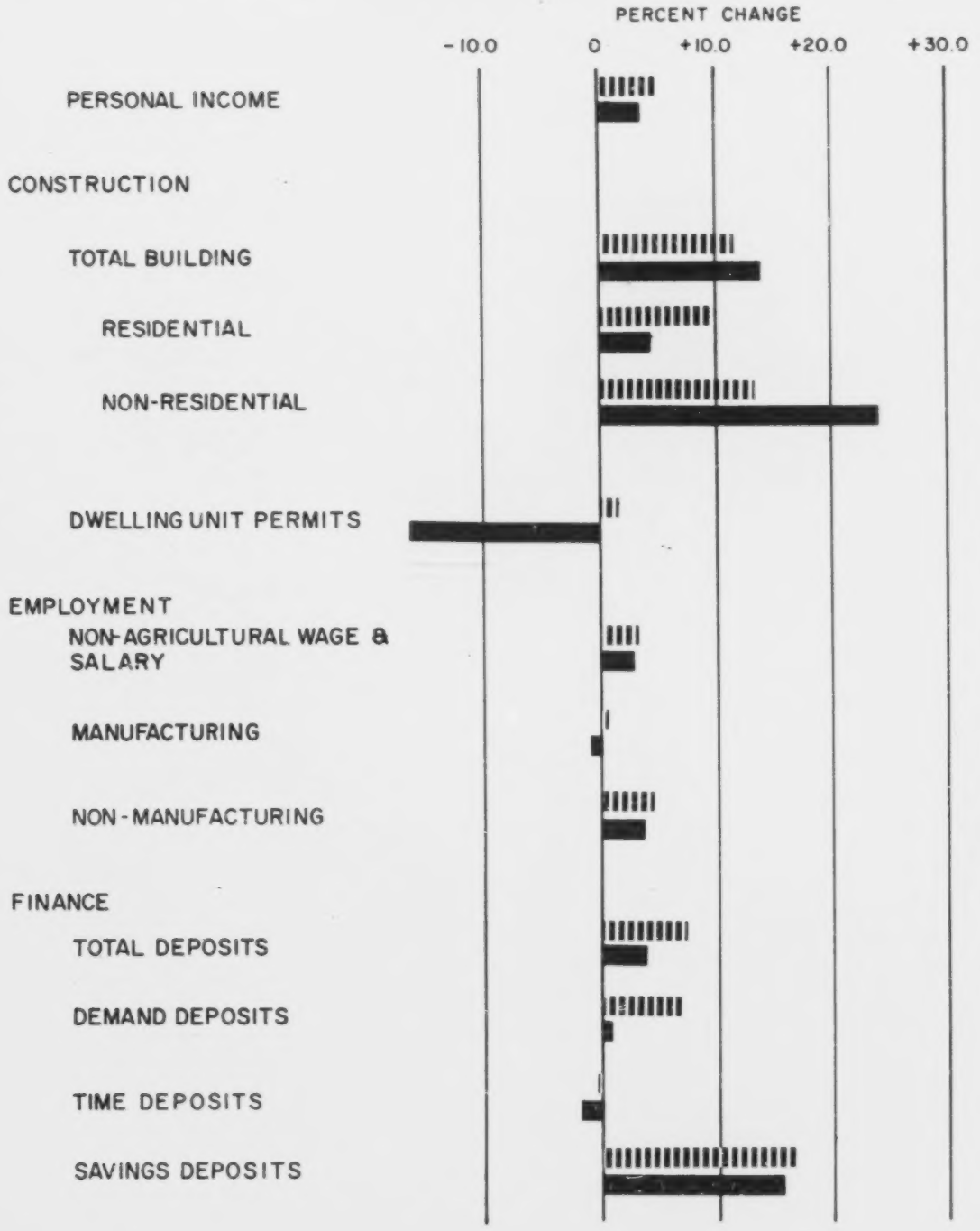
Source: The Federal Reserve Bank of St. Louis and the Federal Reserve Bank of Atlanta.

SAVINGS AND LOAN ACTIVITY	Alabama	Arkansas	Louisiana	Mississippi	Tennessee[1]
Mortgage Loans Made (millions) Percent Change Year Ago Percent Change Year-to-Date	CHANGE IN DATA REPORTING FORMAT. NO COMPARABLE DATA AVAILABLE FOR THIS REPORT.				

[1]Figures are for total loans made.

Source: Federal Home Loan Banks of Little Rock, Cincinnati, and Atlanta.

THE MID-SOUTH ECONOMY AND U.S. ECONOMY
1985 COMPARED WITH 1984



SOURCE: SURVEY OF CURRENT BUSINESS; FEDERAL RESERVE BANK OF ATLANTA; BUREAU OF ECONOMIC ANALYSIS; STATE EMPLOYMENT SERVICES.

Legend
UNITED STATES
MID-SOUTH

ANALYSIS OF ANNUAL CHANGES IN THE MID-SOUTH ECONOMY

The U.S. economy completed its third year of sustained economic growth in 1985; however, the expansion was not sufficient to drop the unemployment rate below its pre-recession level of under 6.0 percent. Moreover, the pace of economic activity during 1985 was unbalanced. From fourth quarter 1984 to fourth quarter 1985, the nation's real Gross National Product advanced 2.5 percent, well below the 4.5 percent average growth rate recorded since fourth quarter 1982. By contrast, the respective 1985 quarterly growth rates were 3.7 percent, 1.1 percent, 3.0 percent, and 1.2 percent. Moderate increases were also registered in industrial production, up 2.4 percent in 1985, with business sector productivity increasing only 0.4 percent. Foreign trade continued to be a drag on the economy, with exports declining 2.9 percent and imports climbing 2.4 percent over 1984. The bright spots in 1985 were seen in inflation and interest rates. The Consumer Price Index advanced 3.6 percent, with the Producer Price Index rising only 2.1 percent for 1985. In addition, based on annual averages, three-month Treasury bills declined 208 basis points to 7.48 percent, and Aaa corporate bonds fell 134 basis points to 11.37 percent. Moreover, by the last week in December 1985, three-month Treasury bills and Aaa corporate bonds had fallen to 7.02 and 9.97, respectively.

For the Mid-South states, personal income grew a modest 3.5 percent compared with the 5.0 percent growth rate nationally. Tennessee was the only Mid-South state to outpace the national gain. Sales tax collections rose approximately 8.0 percent across the Mid-South, with Tennessee registering the best gain, up 14.1 percent over 1984. Since December 1984, the Mid-South civilian labor force remained unchanged at 8,189,800 persons. However, the total number of persons unemployed declined 7.4 percent compared with a 3.2 percent decline for the nation. The unadjusted unemployment rate for the Mid-South remained relatively high at 9.2 percent compared with 10.0 percent for December 1984. By comparison, the aggregate unemployment rate for December 1983 was 9.5 percent. Alabama and Tennessee experienced substantial reductions in unemployment, with Arkansas, Louisiana, and Mississippi registering increases in the number of persons unemployed. The major metropolitan areas of the Mid-South had mixed unemployment rates. Birmingham registered the most significant decline, falling from 9.8 percent in December 1984 to 6.4 percent in December 1985. Little Rock, Jackson, and Memphis remained virtually unchanged over 1984, with New Orleans experiencing an increase of one percentage point to 10.8 percent. Across the Mid-South, manufacturing employment losses were registered in electrical machinery, textiles, and lumber. The sector with the best overall gain was transportation equipment, up approximately 1,200 jobs. Alabama and Tennessee registered a combined gain of 2,500 jobs in the food sector, with Arkansas and Mississippi registering a combined gain of 1,800 jobs in the apparel/textile sector. On the other side, non-manufacturing employment in the Mid-South climbed 181;300 jobs, a gain of 3.7 percent and slightly below the 4.1 percent gain registered nationally.

Table 1

1985 PERSONAL INCOME AND PERCENTAGE CHANGE FROM 1984

Area	Personal Income, First Nine Months, 1985 (Millions)	Percent Change From First Nine Months, 1984
United States	$3,211,584	+ 5.0
Mid-South Region		+ 3.5
Alabama	42,241	+ 4.5
Arkansas	24,187	+ 4.1
Louisiana	49,757	+ 1.5
Mississippi	23,038	+ 0.2
Tennessee	52,753	+ 6.0

Source: Bureau of Economic Analysis.

Table 2

1985 MID-SOUTH SALES TAX COLLECTIONS AND PERCENTAGE CHANGE FROM 1984

Area	1985 Collections (Thousands)	Percent Change From 1984
Mid-South States[1]	$3,888,512	+ 8.1
Alabama	724,724	+ 2.9
Arkansas	596,240	+ 2.3
Louisiana	N.A.	N.A.
Mississippi	759,699	+ 4.5
Tennessee	1,807,849	+ 14.1

[1]Excludes Louisiana.
Source: State departments of revenue.

For the twelve months ending in November 1985, the dollar value of total building permits issued in the Mid-South rose 13.8 percent over the comparable 1984 period, outpacing the national gain of 11.2 percent. Non-residential building activity led the way with an increase of 23.9 percent compared with the U.S. increase of 13.0 percent. Office and school construction recorded the largest gains. However, on the residential side, the dollar value of permits issued for dwelling units in the Mid-South increased a modest 4.3 percent, half the national gain, with the number of dwelling units declining 16.5 percent, primarily in the multi-family sector. Single-family unit permits rose 4.4 percent to an annual rate of 45,300. Mid-South construction employment was mixed in 1985. Total construction employment fell slightly, down 0.6

percent from last December. Mississippi recorded the best gain, up 6.5 percent, with Jackson registering an increase of 8.4 percent. Moderate gains were registered in Alabama and Arkansas, with Birmingham experiencing the best gain among the Mid-South metropolitan areas, up 9.3 percent over 1984 levels. Tennessee registered a slight decline of 0.8 percent from a year ago, while Louisiana's construction employment decreased 5.4 percent, or 6,200 jobs. About one-third of Louisiana's losses were accounted for by a 6.7 percent decline in construction employment in New Orleans.

The agricultural sector in 1985 continued to be a concern for the Mid-South economy. Across the U.S., cash marketing receipts fell 5.2 percent over 1984, with total agricultural employment declining 4.3 percent. And, in terms of acres planted, soybean acreage decreased 6.8 percent and cotton declined 3.9 percent over 1984 levels. Broilers accounted for the most cash receipts in Alabama

CONSTRUCTION[1] NOVEMBER 1985	United States	Mid-South States				
		Alabama	Arkansas	Louisiana	Mississippi	Tennessee
Total Building						
Percent Change Year Ago	+11.2	+ 5.9	N.A.	- 5.5	- 0.2	+45.2
Residential Building						
Percent Change Year Ago	+ 9.7	+17.8	N.A.	-26.7	-11.4	+32.4
Non-Residential Building[2]						
Percent Change Year Ago	+13.0	- 2.0	N.A.	+13.8	+16.1	+64.4
Total Dwelling Unit						
Percent Change Year Ago	+ 1.2	+12.8	N.A.	-36.5	-29.3	+ 7.7

[1]Twelve-month cumulative rate.

[2]Non-residential data exclude the cost of construction for publicly-owned buildings.

Source: The Federal Reserve Bank of Atlanta from data supplied by the Bureau of Census.

LABOR DECEMBER 1985	United States	Mid-South States				
		Alabama	Arkansas	Louisiana	Mississippi	Tennessee
Civilian Labor Force	115,780,000	1,801,000	1,047,900	1,965,200	1,119,300	2,256,400
Percent Change Year Ago	+1.5	+ 0.2	+1.7	+ 3.8	+4.3	+ 0.1
Unemployed	7,717,000	144,400	98,100	226,900	112,300	171,700
Percent Change Year Ago	-3.2	-30.6	+3.5	+22.2	+1.7	-12.0
Unemployment Rate						
1985	6.7	8.0	9.4	11.5	10.0	7.6
1984	7.0	11.6	9.2	9.8	10.3	8.7
Non-Agricultural Wage & Salary Employees	99,059,000*	1,410,700	802,500	1,589,900	858,900	1,902,400
Percent Change Year Ago	+3.1	+ 1.2	+0.8	- 1.3	+1.8	+ 2.8
Manufacturing Employment	19,420,000*	346,700	208,600	171,600	221,400	481,600
Percent Change Year Ago	-0.9	- 0.7	-1.7	- 6.9	+0.7	- 3.1
Non-Manufacturing Employment	79,637,000*	1,064,400	593,900	1,418,300	637,500	1,420,800
Percent Change Year Ago	+4.1	+ 1.8	+1.7	- 0.6	+2.2	+ 5.0
Average Weekly Earnings of Production Workers in Manufacturing	$403.94	$370.15	$309.10	$446.90	$305.86	$357.85
Percent Change Year Ago	+4.3	+ 7.7	+2.6	+ 4.8	+4.6	+ 5.3
Average Weekly Hours of Production Workers in Manufacturing	41.6	42.4	40.3	42.4	41.5	42.5
Percent Change Year Ago	+0.1	+ 2.4	-0.1	+ 1.7	+1.2	+ 1.9
Average Hourly Earnings of Production Workers in Manufacturing	$ 9.71	$ 8.73	$ 7.67	$ 10.54	$ 7.37	$ 8.42
Percent Change Year Ago	+3.3	+ 5.2	+3.6	+ 3.0	+3.4	+ 3.3

*Seasonally adjusted.

Source: Departments of Employment Security and Survey of Current Business.

and Arkansas, while soybeans were the major cash crop in Louisiana and Mississippi. Tennessee's major cash receipts group was cattle. A mixed picture of agricultural debt was evident in the Mid-South states. The net farm income to debt ratio was 12.6 percent nationally, with Louisiana, Mississippi, and Tennessee below the average at 0.9, 6.1, and 9.4 percent, respectively. Alabama's ratio was 23.2 percent, while Arkansas' ratio totaled 21.0 percent.

Finally, the following list presents a selected chronology of major economic events which occurred in 1985:

JAN. 1 Social Security tax rate rose to 7.05 percent, and price controls lifted on natural gas.

JAN. 30 OPEC abandoned Saudi light crude oil as benchmark; cut price.

FEB. 25 Trade-weighted dollar hit record high.

MARCH 1 Administration would not request extension of Japanese auto export quotas.

MAY 15 Administration announced $2.0 billion subsidy program for agricultural exports.

JUNE 16 Supreme Court upheld state laws allowing interstate bank purchases on reciprocal basis.

JUNE 18 Prime rate fell from 10.0 to 9.5 percent, lowest since 1978.

JULY 12 Mexico cut oil prices, indicating break with OPEC.

AUG. 30 Index of farm prices fell to lowest level since 1978.

SEPT. 17 U.S. became debtor nation in second quarter, first time since 1914.

SEPT. 22 Group of five nations agreed to intervene to reduce value of the dollar.

OCT. 25 Treasury reported $212.0 billion federal deficit for fiscal year 1985.

NOV. 1 European Economic Community agreed to limit steel exports to U.S. to 5.5 percent of U.S. market.

NOV. 20 VA mortgage rate ceiling fell from 11.5 to 11.0 percent, lowest since 1979.

DEC. 12 Gramm-Rudman Act mandated balanced budget by 1991.

DEC. 16 Dow Jones Industrial Average closed at 1553, high for the year.

DEC. 23 Food Security Act of 1985 significantly altered many farm programs.

DEC. 31 FDIC reported 120 insured banks failed in 1985, the highest rate since 1937.

FINANCE DECEMBER 1985	United States	Mid-South States	Alabama	Arkansas	Louisiana	Mississippi	Tennessee
Member Banks as of 12/2/85 Percent Change from Comparable Date 1984							
Total Deposits	+ 6.9	+ 3.7	+ 1.2	N.A.	+ 5.3	+ 4.3	+3.4
Demand Deposits	+ 6.6	+ 0.3	+ 4.8	N.A.	- 3.1	+ 5.2	-1.9
Time Deposits	- 0.1	- 1.8	- 8.6	N.A.	- 0.3	- 0.4	+0.6
Savings Deposits	+16.2	+15.5	+13.3	N.A.	+25.9	+12.8	+6.8

Source: The Federal Reserve Bank of St. Louis and the Federal Reserve Bank of Atlanta.

SAVINGS AND LOAN ACTIVITY	Alabama	Arkansas	Louisiana	Mississippi	Tennessee[1]
Mortgage Loans Made (millions) Percent Change Year Ago Percent Change Year-to-Date	CHANGE IN DATA REPORTING FORMAT. NO COMPARABLE DATA AVAILABLE FOR THIS REPORT.				
Net Savings Flow (millions)[2] Percent Change Year Ago Percent Change Year-to-Date					

[1]Figures are for total loans made.

[2]Net savings flow equals new savings received plus dividends credited minus savings withdrawn.

Source: Federal Home Loan Banks of Little Rock, Cincinnati, and Atlanta.

concerns for the financial markets in 1986 will be the international loan difficulties arising from lower oil prices and the prospects for reduced capital flows from foreigners associated with lower U.S. interest rates.

HOUSING (SHELBY COUNTY)

During the fourth quarter of 1985, all Shelby County housing indicators reflected continued positive improvement, especially multi-family dwelling unit starts.

Total residential permits issued during 1985 increased 70.6 percent, from 7,120 in 1984 to 12,147 in 1985. This increase was due to an 11.9 percent increase in single-family permits; a 75.0 percent increase in duplex permits; and a 123.7 percent increase in apartment, condominium, and townhouse permits.

Total starts for 1985 were up 23.1 percent from their 1984 level to 6,657. This increase was primarily due to a 57.3 percent jump in apartment starts and an 1,800.0 percent increase in duplex starts. Single-family starts registered a 13.0 percent decline.

Apartments accounted for 64.4 percent of total Shelby County housing starts in 1985. The majority of overall residential housing growth in 1985 can be attributed to the substantial increase over 1984 levels in multi-family building activity (both permits and starts).

Sales of new single-family homes increased 2.1 percent in 1985 over 1984. Condominium sales were up 2.6 percent for the year but were down 55.8 percent during fourth quarter 1985.

The average sales price of a new single-family home was $94,528 in 1985. This represented an increase of 5.3 percent over the 1984 average of $89,810. The sale price of condominiums was down 7.8 percent, for a 1985 yearly average of $52,886.

The number of real estate transfers increased 12.7 percent in 1985 compared to the 1984 level. In addition, the dollar amount of the transfers was up 13.2 percent during 1985. Mortgage foreclosures at year-end 1985 remained at their 1984 level; however, foreclosures were up slightly in the fourth quarter of 1985.

Housing permits for the incorporated portions of Shelby County (excluding Memphis and Germantown) totaled 123 units for fourth quarter 1985. All the permits were for single-family dwelling units. This represented a 17.0 percent increase over fourth quarter 1984, with Collierville showing the largest increase—from 35 units during fourth quarter 1984 to 55 units during fourth quarter 1985.

The inventory of both completed and uncompleted homes in Shelby County reflected an increase during the fourth quarter of 1985 when compared to the same quarter

Table 1

SHELBY COUNTY HOUSING INDICATORS, FOURTH QUARTER, 1984-1985

Items	Fourth Quarter 1985	Fourth Quarter 1984	Year-to-Date 1985	Year-to-Date 1984	Percent Change Year-to-Date 1985 From Year-to-Date 1984
NEW RESIDENTIAL UNITS					
Total Permits Issued[1]	2,057	1,832	12,147	7,120	+ 70.6
Single-Family	864	757	3,781	3,377	+ 11.9
Duplex	16	--	28	16	+ 75.0
Apartments[2]	1,177	1,075	8,338	3,727	+ 123.7
Total Starts[1]	1,225	728	6,657	5,408	+ 23.1
Single-Family	426	579	2,331	2,680	- 13.0
Duplex	28	--	38	2	+1,800.0
Apartments[2]	771	149	4,288	2,725	+ 57.3
Sales Closed					
Single-Family (New)	763	552	2,621	2,566	+ 2.1
Condominium	99	224	659	642	+ 2.6
Average Sales Price					
Single-Family (New)	$95,661	$88,406	$94,528	$89,810	+ 5.3
Condominium	$54,677	$48,482	$52,886	$57,364	- 7.8
REAL ESTATE TRANSFERS					
Number	5,520	4,591	21,129	18,741	+ 12.7
Amount (000)	$444,969	$387,713	$1,822,729	$1,610,604	+ 13.2
NUMBER OF MORTGAGE FORECLOSURES	387	345	1,472	1,472	0.0

[1]Expressed in number of dwelling units.

[2]Apartments include condominiums and townhouses.

in 1984. The increase was composed of a 9.6 rise in the total number of uncompleted houses and a 42.2 percent increase in the number of completed houses. These statistics point to a very active and continually increasing new home market in Shelby County.

The average selling price of all units sold in Shelby County in the fourth quarter of 1985 increased 4.6 percent over the fourth quarter 1984 average price. Home sales in Shelby County totaled $1.09 billion during fourth quarter 1985. This was the first time sales passed the billion dollar mark. Most of the increase was due to the stable mortgage rates which are expected to continue into the first half of 1986. The mortgage rate was at its lowest level in six years during fourth quarter 1985.

Table 2

RESIDENTIAL BUILDING PERMITS AND STARTS, INCORPORATED AREAS (EXCLUDING MEMPHIS AND GERMANTOWN)[1] IN SHELBY COUNTY, FOURTH QUARTER, 1985

Area	Permits			Starts		
	Single-Family	Duplex[2]	Apartments[2]	Single-Family	Duplex[2]	Apartments[2]
Bartlett	63	--	--	63	--	--
Arlington	1	--	--	0	--	--
Millington	--	--	--	--	--	--
Collierville	55	--	--	55	--	--
Lakeland	4	--	--	4	--	--
Total	123	--	--	122	--	--

[1]Due to local government consolidation between Memphis and Shelby County, residential permits and starts cannot be separately identified for the municipalities of Memphis and Germantown. The statistical data for these two municipalities are included in the data for unincorporated Shelby County.

[2]Number of dwelling units.

Table 3

INVENTORY OF UNSOLD SINGLE-FAMILY HOUSING UNDER CONSTRUCTION AND NEW HOUSING, SHELBY COUNTY, TENNESSEE, DECEMBER 31, 1985

Square Feet	Summary of Uncompleted Houses, Days Since First Inspection						Summary of Completed Houses, Days Since Final Inspection					
	<30	30-60	60-90	90-180	>180	Total	<30	30-60	60-90	90-180	>180	Total
Under 1,000	1	2	2	5	50	60	3	7	1	4	75	90
1,000 - 2,000	4	3	11	27	65	110	5	6	3	5	114	133
1,200 - 1,400	8	4	12	81	75	180	21	13	8	11	125	178
1,400 - 1,600	17	21	30	69	102	239	23	21	13	20	134	211
1,600 - 1,800	8	15	29	56	71	179	13	6	11	7	65	102
1,800 - 2,000	7	20	13	75	91	206	19	5	9	3	74	110
2,000 - 2,200	5	13	14	54	95	181	6	6	11	7	70	100
2,200 - 2,400	6	13	15	38	82	154	4	5	6	6	50	71
2,400 - 2,600	11	6	16	57	81	171	16	4	8	6	65	99
2,600 - 2,800	3	10	8	42	62	125	8	4	4	3	31	50
2,800 - 3,000	3	9	8	18	55	93	2	3	6	4	30	45
3,000 - 3,200	5	4	5	17	28	59	4	2	1	1	31	39
3,200 - 3,400	--	3	4	13	32	52	1	2	4	4	21	32
3,400 - 3,600	4	1	3	7	28	43	3	1	2	--	22	28
3,600 - 3,800	--	1	4	11	27	43	4	4	1	1	21	31
3,800 - 4,000	1	2	3	8	25	39	3	4	1	3	12	23
Over 4,000	4	1	11	41	133	190	7	8	4	8	81	108
Total	87	128	188	619	1,102	2,124	142	101	93	93	1,021	1,450

Source: K. William Chandler, Housing Inventory.

Table 4

SALES OF EXISTING AND NEW SINGLE-FAMILY RESIDENTIAL UNITS AND DUPLEXES, MEMPHIS AND SHELBY COUNTY, TENNESSEE, FOURTH QUARTER, 1968-1985, AND ANNUAL SUMMARY, 1968-1985

Year	Total Dollar Volume All Price Ranges (Millions)		Number of Units Sold		Average Sale Prices All Units	
	4th Quarter	Annual	4th Quarter	Annual	4th Quarter	Annual
1968	$ 46.7	$ 187.8	2,891	11,517	$16,165	$16,306
1969	45.4	204.8	2,756	11,851	16,473	17,281
1970	50.7	201.1	2,924	11,264	17,339	17,853
1971	59.4	273.1	3,607	13,727	19,240	19,895
1972	N/A	N/A	N/A	N/A	N/A	N/A
1973	87.0	396.3	3,206	15,278	27,137	25,939
1974	72.4	395.0	2,616	13,789	27,676	28,646
1975	101.2	401.6	3,257	12,942	31,072	31,031
1976	125.2	493.7	3,776	14,985	33,157	32,946
1977	52.8	537.5	1,265	14,700	41,739	36,565
1978	188.6	739.4	4,511	18,359	41,809	40,274
1979	203.2	819.3	4,475	18,371	45,408	44,597
1980	205.8	739.7	4,185	15,248	49,175	48,511
1981	119.8	605.1	2,258	11,455	53,056	52,824
1982	131.6	518.7	2,601	9,590	50,596	54,088
1983	199.7	791.1	3,405	13,684	58,649	57,810
1984	205.0	914.8	3,538	15,074	57,942	60,689
1985	290.1	1,091.7	4,521	17,123	64,178	63,488

Source: K. William Chandler, Residential Sales Report.

TENNESSEE ECONOMY

Tennessee's unemployment rate declined one percentage point from last January, the lowest January rate since 1980. Total non-agricultural employment increased 4.2 percent, with non-manufacturing registering the best gain of 6.3 percent. Manufacturing employment was 1.6 percent lower than January 1985. However, the unemployment rate between December 1985 and January 1986 increased in 77 counties, decreased in 16 counties, and remained unchanged in 2 counties. Williamson County continued to have the lowest unemployment rate at 3.1 percent, while Cocke County is experiencing the highest rate at 24.6 percent. All the major metropolitan areas registered increases in their unemployment rates, with the Tri-Cities area increasing a full percentage point. The increases for the other metropolitan areas were: Chattanooga, 0.2 percent; Knoxville, 0.6 percent; Memphis, 0.4 percent; and Nashville, 0.7 percent. Manufacturing declines in the metropolitan cities were concentrated in metals/machinery, textiles/apparels, and food. Nashville was the only major city to register a gain in manufacturing employment, up 1.6 percent, primarily in the transportation equipment sector. Two positive signs are on the horizon, however, with February 1986 initial claims for unemployment 24.4 percent below last February and non-manufacturing employment gains anticipated to outperform the national rate.

The outlook for the construction sector is optimistic, with the dollar value of total building permits increasing 43.7 percent in 1985 versus 1984, compared to a national gain of 12.1 percent. Residential building climbed 31.5 percent, with single-family unit permits registering a 33.0 percent gain to an annual rate of 18,300 units. The number

of multi-family units experienced a decline of 7.4 percent. Non-residential construction increased 61.9 percent, with industrial building and schools more than double their 1984 levels. Construction employment across the state added 6,700 workers, a gain of 9.2 percent.

Tennessee farmers were surveyed in early March to obtain the first indications of crop acreage to be planted in 1986. Uncertainty was evident, primarily due to new farm programs. However, respondents did indicate intentions to plant less tobacco, cotton, and sorghum and more soybeans. The February index of prices received by Tennessee farmers for all farm products was 10.0 percentage points below the 128.0 level registered last February. The crop price index declined 10.8 percent, with the livestock index falling 6.2 percent. Tennessee egg production declined to 61.0 million in January 1986, 11.6 percent below January 1985. Milk production increased 2.5 percent from year ago levels. Total live weight slaughtered was 4.4 percent below last January.

Finally, major crop and livestock rankings by producing states in 1985 were recently released for Tennessee. Tobacco and fresh market tomatoes ranked third in the producing states, with cotton ranking eighth. Soybeans ranked tenth among 29 producing states, and grain sorghum ranked seventh among 20 producing states. Tennessee ranked twelfth among all 50 producing states in cattle and calves. Hog and pig production ranked fourteenth.

Table 1

INVESTMENT PERIODS FOR SELECTED INFLATION AND DISCOUNT RATES

r = Real Discount Rate	f = Rate of Inflation						
	.02	.04	.06	.08	.10	.12	.14
	n* (years)[1]						
.02	35.00	27.85	23.54	20.61	18.47	16.81	15.50
.04	20.64	17.67	15.63	14.11	12.93	11.99	11.20
.06	14.77	13.12	11.90	10.94	10.17	9.53	8.79
.08	11.56	10.50	9.67	9.01	8.45	7.99	7.59
.10	9.53	8.79	8.19	7.69	7.27	6.91	6.60
.12	8.13	7.58	7.12	6.73	6.40	6.12	5.86
.14	7.11	6.68	6.31	6.00	5.74	5.50	5.29

[1]n* = the investment period which results in the maximum difference between present values calculated with and without inflation, where costs are capitalized.

Conclusions

Where business costs are deducted after an inflationary period, after-tax present values are too high if inflation is assumed to be zero. Tax savings from deducting costs are constant in nominal terms and their present value is overestimated if a real discount rate is used (unless the basis is deflated as mentioned in Footnote 1). The degree of bias can be predicted and may be significant or trivial, depending on all of the variables pertinent to an investment (discount rate, inflation rate, tax rate, initial cost, and investment period). The inflation-induced reduction in present value rises with lower discount rates or with greater inflation, tax rates, and deductible costs. The reduction may increase or may decrease, however, for lengthening investment periods.

Evaluating present values after capital gains taxes, Klemperer [4] correctly concluded that the present value reduction caused by inflation was likely to be trivial for investments with payoff periods longer than 30 years, assuming historic inflation rates and typically acceptable industrial real alternative rates of return in the U.S. Since the present value reduction does not necessarily decrease for longer investments, however, and since the reduction is fairly sensitive to real interest rates, it is recommended that present values after income taxes be calculated with a projected inflation rate, for all investment lives, incorporating the same inflation rate in the cash flows and the discount rate.

FOOTNOTES

[1]An alternative would be to deflate the initial cost term. The result is equivalent and represents another means of correctly incorporating inflation in after-tax analyses. Generalized expressions for the terms are given below:

Present values with and without inflation and the difference between them in analyses where investment costs are capitalized:

- r = real interest rate (in decimal percent), excludes inflation
- f = average annual rate of inflation (in decimal percent)
- n = investment period (years)
- V_0 = present value excluding inflation
- V_0' = present value with inflation
- I_n = real income in year n, excluding inflation
- t = tax rate (decimal present)
- C = cost basis, to be deducted from taxable income in year n

For depreciation or depletion, the expressions below can be applied to each year in which a deduction is made; in such cases C is the portion of initial costs deducted in year n:

$$V_0 = \frac{I_n - t(I_n - C)}{(1 + r)^n}$$

$$V_0' = \frac{I_n (1 + f)^n - t(I_n (1 + f)^n - C)}{(1 + r)^n (1 + f)^n}$$

$$V_0 - V_0' = t(C)\left[\frac{1}{(1 + r)^n} - \frac{1}{(1 + r)^n (1 + f)^n}\right]$$

REFERENCES

1. Gregersen, H. M. "Effect of Inflation on Evaluation of Forestry Investments," *Journal of Forestry*, 73, 1975, 570-572.
2. Hanke, S. H., P. H. Carver, and P. Bugg. "Project Evaluation During Inflation," *Water Resources Research*, 11, 1975, 511-514.
3. Harou, P. A. "A Note on the Real Rate of Discount," *Forest Science*, 29, 1983, 249-252.
4. Klemperer, W. D. "Inflation and Present Value of Timber Income After Taxes," *Journal of Forestry*, 77, 1979, 94-96.
5. Nelson, C. R. "Inflation and Capital Budgeting," *Journal of Finance*, 31, 1976, 923-931.

TRENDS IN INDUSTRIAL CONCENTRATION, 1947-1977, AND THE BAIN INDUSTRIAL CLASSIFICATION SYSTEM

*Anthony J. Greco**

Introduction

The *Census of Manufactures* has developed and long since used a fourfold classification of manufacturing industries according to seller concentration. More specifically, the *Census* classifies the proportion of industry shipments supplied by the largest four firms in each specific industry into one of the following groups:

(1) 76-100 percent of industry shipments (very high concentration)
(2) 51-75 percent of industry shipments (high concentration)
(3) 26-50 percent of industry shipments (moderate to relatively low concentration)
(4) 0-25 percent of industry shipments (low concentration)

Professor Joe Bain has pointed out that the above is superior to a twofold classification of industries as (1) "monopolistic" or "oligopolistic" if the top four firms have 50 percent or more control of the market or (2) "competitive" if the top four firms have less than 50 percent control of the market. However, Bain feels that the fourfold classification scheme of the *Census* is less than ideal in that the seller-concentration classes are arbitrarily drawn and in that the classification is limited to the proportion of industry output supplied by the four largest firms alone. As he notes, both the size distribution of the four largest sellers in a particular industry and the number and size distribution of the remaining sellers in such an industry are not addressed by the fourfold *Census* classification.[1]

To overcome some of the deficiencies, Bain has proposed a severalfold classification scheme which encompasses the total number of sellers in an industry and their size distribution, as well as the degree of top-level concentration. His scheme is basically comprised of five oligopolistic classifications and one atomistic classification. Starting with the most highly concentrated classification and working down, his categories are as follows:

(1) *Industry Type Ia*
Very high concentration with a small absolute number of sellers
Top 4 firms controlling 75-100 percent of total industry output
Top 8 firms controlling 90-100 percent of total industry output
Fringe firms controlling 0-10 percent of total industry output, with the number of such firms ranging from none to very few

(2) *Industry Type Ib*
Very high concentration but with a larger absolute number of firms than found in Type Ia
Top 4 firms controlling 75-95 percent of total industry output
Top 8 firms controlling 90-95 percent of total industry output
Fringe firms controlling 10 percent of total industry output, with these ranging in number from a few up to 20. Notice that though they number more than the fringe firms in Type Ia, they do not have any more control over industry output.

(3) *Industry Type II*
High concentration
Top 4 firms controlling 65-75 percent of total industry output
Top 8 firms controlling 85-90 percent of total industry output
Fringe firms controlling 10-15 percent of total industry output, with usually 20 or 30 firms but ranging up to 100 firms

(4) *Industry Type III*
High moderate concentration
Top 4 firms controlling 50-65 percent of total industry output
Top 8 firms controlling 70-85 percent of total industry output

**Assistant Professor of Economics, The University of Southwestern Louisiana, Lafayette, Louisiana.*

Fringe firms controlling 15-30 percent of total industry output, with a substantial number of such firms

(5) *Industry Type IV*
Low moderate concentration
Top 4 firms controlling 35-50 percent of total industry output
Top 8 firms controlling 45-70 percent of total industry output
Fringe firms controlling 30-55 percent of total industry output and being comprised of a large number

(6) *Industry Type V*
Low concentration
Top 4 firms controlling less than 35 percent of total industry output
Top 8 firms controlling less than 45 percent of total industry output
Fringe firms controlling 55 percent or more of total industry output, with a very large number of such firms

(7) *Industry Type VI*
Atomistic; where no seller is large enough to likely have a recognized interdependence with other sellers.[2]

To the knowledge of the author of this article, no one, including Professor Bain, has ever actually applied this classification scheme to the various manufacturing industries defined by the Standard Industrial Classification (SIC) of the U.S. Department of Commerce. An attempt is made to do so in this article by a close examination of the concentration ratios reported in the latest issue of "Concentration Ratios in Manufacturing," a subject series of the 1977 *Census of Manufactures*.[3] This publication, among other things, reports concentration ratios for the four, eight, twenty, and fifty largest companies in terms of the value of industry shipments for 450 four-digit manufacturing industries for selected years over the period 1935-1977.

As mentioned above, Professor Bain has proposed this classification scheme to overcome some of the deficiencies he has perceived in the fourfold system used by the *Census of Manufactures*. Through this system, or one like it, he has hoped to help clarify the interrelationships among the structure, conduct, and performance of individual industries. He orients his system to theory and systematic observation by trying to distinguish within it structural patterns which might theoretically be expected to, and which, indeed, had on occasion been observed to, result in different types of market conduct and performance.

Bain's system, much more so than that of the *Census of Manufactures*, recognizes that wide differences in the degree and pattern of seller concentration exist among oligopolistic industries and that these may be expected to result in corresponding differences in the character of market conduct and performance.[4] These latter differences, for the most part, remain to be determined. It is hoped that the application of Bain's classification system provided in this article will induce others to conduct research within specific industries that will ultimately lead to a specification of these differences and, hence, to a fuller understanding of the relationship between market structure, conduct, and performance on a theoretical as well as on a practical plane.

Data Analysis

Classification of Industries for 1947 and 1977

Since 1935 data were reported for only 65 industries and since the next year for which data were reported is 1947, this article concentrates on the period from 1947-1977. Of the 450 industries included in the report, industrial concentration ratios for 1947 are provided for only 184 of the industries. The results of applying Bain's severalfold classification system to these are revealed in Table 1.[5]

Table 1

CLASSIFICATION OF 184 INDUSTRIES ACCORDING TO THE BAIN SEVERALFOLD INDUSTRIAL CLASSIFICATION SYSTEM, 1947

Industry Type	Number of Industries	Percent of Total
Ia	12	6.5
Ib	8	4.3
II	8	4.3
III	25	13.6
IV	43	23.4
V	77	41.8
VI	11	6.0
Total	184	99.9

For 1977, four- and eight-firm concentration ratios are reported for 443 of the 450 manufacturing industries. A breakdown of those industries according to Bain's classification is contained in Table 2.

Table 2

CLASSIFICATION OF 443 INDUSTRIES ACCORDING TO THE BAIN SEVERALFOLD INDUSTRIAL CLASSIFICATION SYSTEM, 1977

Industry Type	Number of Industries	Percent of Total
Ia	21	4.7
Ib	6	1.4
II	19	4.3
III	66	14.9
IV	125	28.2
V	189	42.7
VI	17	3.8
Total	443	100.0

Because of the obvious differences in the industries for which data were reported for the two years, a direct comparison of the results emanating from the application of the Bain classification is not possible. Hence, the

percentage of the total industries reported accounted for by each industry type under Bain's classification was computed for each of the two years. The results reveal a high degree of stability among the concentration classifications over the 30-year period. The two most concentrated classifications (Ia and Ib) did drop, with Ib showing the greater drop. However, the percentage share of category II remained virtually unchanged, as did that of category V. The shares attributable to industry Types III and IV experienced increases, with the greater increase associated with Type IV. Finally, industry Type VI did have a substantial drop (57.9 percent) in its percentage share. That is to say, the relative shares of industries comprising the two most concentrated categories, as well as that of the least concentrated category of Bain's classification, fell, while the relative shares of industries comprising the "High Moderate" and "Low Moderate" categories of Bain's scheme rose. Further, the relative shares of the "High Concentration" and "Low Concentration" classifications remained virtually the same.

Industries for Which Concentration Data Existed for Both 1947 and 1977

In order to focus more on specific industries rather than on the classifications of Bain's system, one can list the industries for which concentration ratios are available for both 1947 and 1977 and examine the differences in these ratios between the two years. To obtain a meaningful comparison, it is imperative that one use only those industries whose definitions were not altered over this time period. The application of such a procedure yields 159 industries.

Over half of these 159 industries (86) had higher concentration ratios in 1977 than in 1947. Sixty-seven of these industries had lower concentration ratios in 1977, and six had approximately the same concentration levels. Defining consumer goods industries as those distributing goods for use by households and producer goods industries as those distributing goods for use mainly by other manufacturers or service industries and subsequently dividing the 159 industries into two separate categories based on these definitions, one obtains 85 consumer goods industries and 74 producer goods industries. Table 3 summarizes the differences in concentration ratios for each group of industries in 1947 and 1977.

For consumer goods, the number of industries showing higher 1977 concentration ratios than those prevailing in 1947 was nearly twice as great as the number of industries showing lower 1977 ratios than those prevailing in 1947. However, the greater number of producer goods industries experienced smaller concentration ratios in 1977 than in 1947, although those having gains were not much less in number. This suggests that, for the industries covered, concentration tended to become more pronounced in consumer goods industries than in producer goods industries.

Table 4 summaries the results of the classification of these 159 industries according to the Bain system for 1947 and 1977.

Table 3

DIFFERENCES IN CONCENTRATION RATIOS FOR SELECTED GROUPS OF CONSUMER GOODS AND PRODUCER GOODS INDUSTRIES, 1947 AND 1977

	Number for Which 1977 Ratios Exceeded 1947 Ratios	Number for Which 1977 Ratios Were Below 1947 Ratios	Number for Which 1977 and 1947 Ratios Were Virtually the Same
Consumer Goods Industries	53	28	4
Producer Goods Industries	33	39	2

Table 4

CLASSIFICATION OF 159 INDUSTRIES ACCORDING TO THE BAIN SEVERALFOLD INDUSTRIAL CLASSIFICATION SYSTEM, 1947 AND 1977

Industry Type	Number of Industries, 1947	Percent of Total, 1947	Number of Industries, 1977	Percent of Total, 1977
Ia	9	5.7	8	5.0
Ib	7	4.4	5	3.1
II	9	5.7	8	5.0
III	21	13.2	27	17.0
IV	35	22.0	45	28.3
V	67	42.1	62	39.0
VI	11	6.9	4	2.5
	159	100.0	159	99.9

A Chi-Square test was used to determine if there had been any change in the distribution of these industries over the 30-year period, with the null hypothesis being that the 1947 and the 1977 distributions were the same. The Chi-Square statistic derived (10.18), when testing at the .10 level of significance with six degrees of freedom, was less than the appropriate critical value and, hence, led to the acceptance of the null hypothesis that there is no distributional difference when testing at this level of significance.

The only increases in percentage shares from 1947 to 1977 were experienced by industries falling in categories III (High Moderate Concentration) and IV (Low Moderate Concentration). This suggests a sort of compression toward moderate levels of concentration from both the higher and lower levels of concentration.

Classification of Industries Over the 1947-1977 and 1963-1977 Periods

Concentration data were reported for the top four and top eight firms for nine selected years over the period 1947-1977. Of the 450 industries included, the data were found to be complete for each of these nine years for 108 industries whose definitions had remained unchanged over the period. Simple averages of the four-firm and eight-firm concentration ratios were computed for each of the 108 industries and used to classify the industries according to Bain's severalfold scheme. The results yielded are reported in Table 5.

Table 5

CLASSIFICATION OF 108 INDUSTRIES ACCORDING TO THE BAIN SEVERALFOLD INDUSTRIAL CLASSIFICATION SYSTEM, 1947-1977

Industry Type	Number of Industries	Percent of Total
Ia	3	2.8
Ib	2	1.8
II	8	7.4
III	18	16.7
IV	31	28.7
V	45	41.7
VI*	1	0.9
Total	108	100.0

*Industries having average four-firm concentration ratios of 10 percent or less were placed in this category.

The results are similar to those obtained for the individual years 1947 and 1977. That is, the greatest number of the industries in the groups studied fell in the "Low Concentration" category, with the "Low Moderate" and "High Moderate" categories claiming the next highest shares, respectively. The total share accounted for by the "Low" and "Low Moderate" concentration groups amounted to 70.4 percent. Adding in the share of the "High Moderate" category expands the total share to 87.1 percent. In fact, only 13 industries (12 percent) fell in the various categories of high concentration (Categories Ia, Ib, and II).

The availability of four-firm and eight-firm concentration data for other time periods within the 1947-1977 span was examined. The periods 1954-1977 and 1958-1977 yielded very small numbers of industries for which complete concentration ratios were available. The 1963-1977 period, however, did produce 117 industries for which complete concentration ratios were reported. Other possible time spans were thought to be too short to consider. Six years of concentration ratios were provided for each industry over the 1963-1977 period. Once again, simple averages of the concentration ratios were computed over these six years for each of the 117 industries. The subsequent classification of these industries according to the Bain classification revealed the results reported in Table 6.

Table 6

CLASSIFICATION OF 117 INDUSTRIES ACCORDING TO THE BAIN SEVERALFOLD INDUSTRIAL CLASSIFICATION SYSTEM, 1963-1977

Industry Type	Number of Industries	Percent of Total
Ia	3	2.6
Ib	2	1.7
II	4	3.4
III	14	12.0
IV	40	34.2
V	48	41.0
VI*	6	5.1
Total	117	100.0

*Industries having average four-firm concentration ratios of 10 percent or less were placed in this category.

Once again the "Low Concentration" category commands the greatest share, with the "Low Moderate" to "High Moderate" categories ranking second and third in shares controlled, respectively. The combined share accounted for by the first two of these categories is 75.2 percent. Adding in the share of the "High Moderate" category expands this share to 87.2 percent, almost exactly the same as the similar share found for the 1947-1977 period. Only nine industries (7.7 percent of the total) fall within the various categories characterized by high concentration (Categories Ia, Ib, and II). This is an even lower percentage than that found for the 1947-1977 period.

Despite the similarities just noted, no direct comparison can be made between the results found for the 1947-1977 period and those uncovered for 1963-1977 because each period contains an entirely different group of industries.

However, these two groups of industries can be combined into one larger group of 225 industries for which concentration ratios are reported for each of the six years given within the 1963-1977 period. A breakdown of these industries according to the Bain classification is provided in Table 7.

Table 7

CLASSIFICATION OF 225 INDUSTRIES ACCORDING TO THE BAIN SEVERALFOLD INDUSTRIAL CLASSIFICATION SYSTEM, 1963-1977

Industry Type	Number of Industries	Percent of Total
Ia	6	2.7
Ib	4	1.8
II	11	4.9
III	34	15.1
IV	71	31.6
V	90	40.0
VI	9	4.0
Total	225	100.0

Aggregate View of Industries for the 1947-1977 and 1963-1977 Periods

In order to take an aggregate view, simple averages of the four-firm and eight-firm concentration ratios, as well as averages weighted by value of shipments, were computed for the 108 industries taken collectively for each of the nine years reported within the 1947-1977 period. Similar averages were also computed for the 117 industries taken collectively for each of the six years reported within the 1963-1977 period, as well as for the larger group of 225 industries taken collectively for each of the six years reported within the 1963-1977 period. These simple and weighted averages are reported in Tables 8, 9, and 10.

These tables suggest that there has been a consistent degree of stability of market shares over the two periods for manufacturing industries taken as a whole. This is in keeping with expectations based on previous observations. The market shares found over these periods could be said, according to Bain's classification, to reflect a "Low Moderate" degree of concentration. This is generally consistent with the other findings reported in this article.

Summary

This article has mainly attempted to classify manufacturing industries for which consistent industrial concentration ratios exist according to the severalfold industrial concentration system proposed some time ago by Professor Joe Bain for the purpose of examining the present state of industrial concentration, as well as how it has been changing over time.

In general, both weighted and unweighted industrial concentration ratios have been relatively stable over time. Most of the industries studied appear to be characterized by moderate levels of concentration. In fact, there has apparently been a compression from both high and low levels of concentration toward the moderate area. These results suggest that the manufacturing sector tends to be primarily characterized by oligopoly. They also tend to confirm, as others have found, that industrial concentration levels have remained fairly stable over the past three decades.

Table 8

UNWEIGHTED AND WEIGHTED FOUR-FIRM AND EIGHT-FIRM CONCENTRATION RATIOS FOR 108 INDUSTRIES FOR SELECTED YEARS, 1947-1977

	Unweighted Average		Average Concentration Ratio Weighted by the Industry's Value of Shipments	
Year	Four-Firm	Eight-Firm	Four-Firm	Eight-Firm
1977	40.6	54.3	34.6	50.8
1972	40.6	54.6	35.8	51.2
1970	41.7	55.6	36.7	51.6
1967	40.9	54.4	36.1	50.8
1966	41.3	54.8	36.4	51.1
1963	40.8	53.7	36.1	50.2
1958	39.7	52.5	36.0	50.2
1954	40.1	52.7	36.6	50.4
1947	40.3	51.7	36.5	48.8
Change 1947-1977	+0.3	+2.6	-1.9	+2.0

Table 9

UNWEIGHTED AND WEIGHTED FOUR-FIRM AND EIGHT-FIRM CONCENTRATION RATIOS FOR 117 INDUSTRIES FOR SELECTED YEARS, 1963-1977

	Unweighted Average		Average Concentration Ratio Weighted by the Industry's Value of Shipments	
Year	Four-Firm	Eight-Firm	Four-Firm	Eight-Firm
1977	36.3	49.2	32.4	44.4
1972	37.0	49.8	33.3	45.2
1970	37.7	50.5	33.9	46.0
1967	36.9	49.5	33.1	45.1
1966	37.2	50.0	33.9	46.1
1963	36.5	49.0	33.7	45.7
Change 1963-1977	-0.2	-0.2	-1.3	-1.3

Table 10

UNWEIGHTED AND WEIGHTED FOUR-FIRM AND EIGHT-FIRM CONCENTRATION RATIOS FOR 225 INDUSTRIES FOR SELECTED YEARS, 1963-1977

	Unweighted Average		Average Concentration Ratio Weighted by the Industry's Value of Shipments	
Year	Four-Firm	Eight-Firm	Four-Firm	Eight-Firm
1977	38.4	51.7	33.5	47.6
1972	38.8	52.1	34.5	48.0
1970	39.6	53.0	35.2	48.6
1967	38.8	51.9	34.5	47.8
1966	39.2	52.3	35.1	48.5
1963	38.5	51.3	34.8	47.9
Change 1963-1977	-0.1	+0.4	-1.3	-0.3

(Continued on page 22)

CURRENT STATUS OF THE UTILIZATION OF OFFICE TECHNOLOGY IN MEMPHIS AREA BUSINESSES

*Janis C. Leggett and Lillian H. Chaney**

Office technology appears to be advancing at a faster pace than businesses can maintain. Organizations concerned with increasing productivity of office personnel and controlling office costs are realizing that utilizing office technology may hold the answers to some corporate problems which have plagued them.

Have Memphis area businesses kept pace with the national trend toward automation in American offices? A recent survey of Memphis area businesses attempted to answer this question.

Survey Purpose

The purpose of the survey was to determine the extent to which businesses in the Memphis, Tennessee, area are utilizing office technology.

Population Selection

The population for the survey was selected from the firms included in the Rodney Baber and Company listing of Who's Who in Memphis Business. The sample population consisted of 120 companies. Firms were stratified by size, using the total number of employees, and by type, using four classifications: manufacturer, retailer, service, and wholesaler.

Questionnaire Development

The survey instrument was developed following a search of the literature and a review of existing survey questionnaires. The initial survey form was evaluated for form and content by business faculty members and by representatives of businesses with knowledge relating to specific questions, such as data bank utilization. Following this review of the questionnaire, the survey form was revised. In its final form, the instrument was duplexed on two 8 1/2- by 11-inch sheets of blue paper.

**The authors are, respectively, Supervisor of the Quality Control Film Laboratory, Diebold, Inc., Memphis, Tennessee; and Associate Professor, Office Administration, Memphis State University, Memphis, Tennessee.*

On the first page of the questionnaire, respondents were asked to indicate the type of business, total number of employees, number of office employees, and factors considered when purchasing office machines and equipment. They were also asked to indicate whether feasibility studies were conducted prior to purchasing office equipment and whether or not this equipment was generally purchased locally.

The second page contained questions concerning the types of office technology currently in use and the method by which each type of equipment was purchased.

Questions on the third page related to computer systems currently in use by the company, including brand names, approximate age of computers, types of disks and printers used, and the number of office employees who had their own computer work stations.

On the final page, respondents were asked to indicate the national information systems or data banks currently utilized and the types of office technology applications currently used.

Survey Procedures

Questionnaires were mailed to 120 Memphis area businesses with a cover letter explaining the purpose of the survey and asking for their assistance in supplying the information requested.

A follow-up letter was mailed to those firms which had not responded by the designated deadline. Telephone follow-up calls were also made to non-respondents. A total of 92 businesses completed and returned the survey form, for a response rate of 76.6 percent. Of the 92 responses, 89 questionnaires were usable.

Findings

The significant results of the questionnaire responses are summarized in this section.

Major Type of Business

A total of 41 of the 89 firms completing the questionnaire (46.0 percent) indicated that manufacturing was the major type of business conducted. Service was the major

type of business indicated by 13 respondents (15.0 percent), 15 (17.0 percent) were classified as wholesalers, and 11 (12.0 percent) were identified as retailers. The remaining 9 (10.0 percent) checked "other."

Number of Employees

Of the 89 firms responding, 31.5 percent maintained a work force of 350 or more employees; 23.6 percent reported 50 to 99 employees. Tables 1 presents the responses to the question relating to number of employees.

Table 1

TOTAL NUMBER OF EMPLOYEES REPORTED BY MEMPHIS AREA BUSINESSES

Total Number of Employees	Frequency	Percent
Fewer than 50	13	14.6
50 to 99	21	23.6
100 to 149	11	12.4
150 to 199	7	7.9
200 to 249	7	7.9
250 to 299	1	1.1
300 to 349	1	1.1
350 and Over	28	31.5
Total	89	100.1

Number of Office Employees

The greatest number of respondents (25.8 percent) reported 10 to 19 office employees; however, 21.3 percent indicated that the size of their office force ranged from 20 to 39 employees. Table 2 shows the total number of office employees reported by the 89 Memphis area firms responding to the questionnaire.

Table 2

TOTAL NUMBER OF OFFICE EMPLOYEES REPORTED BY MEMPHIS AREA BUSINESSES

Total Number of Office Employees	Frequency	Percent
Fewer than 10	14	15.7
10 to 19	23	25.8
20 to 39	19	21.3
40 to 59	4	4.5
60 to 79	4	4.5
80 to 99	5	5.6
100 to 119	2	2.2
120 and Over	18	20.2
Total	89	99.8

Use of Feasibility Studies

Approximately half of the 89 respondents (49.0 percent) indicated that feasibility studies were always conducted prior to purchasing office machines and equipment. A total of 34.0 percent reported that feasibility studies were sometimes conducted, and 17.0 percent indicated that feasibility studies were never utilized.

Factors Considered Prior to Purchasing Office Machines and Equipment

Service and/or maintenance was reported to be the most important factor considered prior to purchasing office machines and equipment by 26.0 percent of the 89 respondents. An additional 23.0 percent indicated that ease of use was most important. Price was chosen by 16.0 percent, and upward compatibility was checked by 13.0 percent. Other factors, such as vendor reputation, were checked less frequently by the remaining firms.

Use of Local Vendors for Purchase of Office Machines and Systems

A majority of the 89 firms responding (88.0 percent) indicated that office machines and systems were generally purchased from local distributors. The remaining 12.0 percent reported that they usually did not purchase from local vendors.

Types of Office Technology in Use

Firms were asked to indicate what types of office technology they were currently using. They were instructed to check all systems in all categories which were being utilized.*

Computers. Of the 83 firms reporting the use of computers, the majority (58.0 percent) indicated that mainframe computers were used by their organizations. A total of 47.0 percent reported using minicomputers, and 54.0 percent indicated the use of microcomputers. Eight percent reported using personal computers.

Conferencing. Of the 23 firms reporting the use of conferencing, the majority (65.0 percent) indicated that computer graphics were used. A total of 61.0 percent were utilizing teleconferencing systems, and 9.0 percent reported the use of other types of conferencing.

Data Processing Systems. Most of the 47 firms responding (55.0 percent) reported the use of keypunch equipment. A total of 49.0 percent indicated they were utilizing accounting machines. Nine firms (19.0 percent) reported the use of some other type of data processing system.

Dictation Equipment. A majority of the 50 firms responding to this question (76.0 percent) indicated that hand-held portable units were utilized. A total of 62.0 percent specified the use of desktop office systems, and 22.0 percent reported using centralized systems.

Reprographics Systems. Most of the 77 respondents to the question (92.0 percent) indicated that photocopiers were in use. Communicating copiers were checked by 18.0 percent of the reporting firms, while use of mimeograph equipment and offset copiers was reported by 14.0 percent. Other types of equipment, such as spirit duplicators, were checked less frequently by the remaining firms.

Telecommunications. About half of the 53 firms responding to this question (51.0 percent) indicated the use of computerized PBXs. A total of 38.0 percent reported the use of facsimile systems, and teletype equip-

ment was reported by 34.0 percent. A total of 32.0 percent of the firms were using data storage or data forward systems, and 19.0 percent indicated the use of text storage or text forward systems. Use of other equipment, such as image storage or image forward systems, was reported by the remaining respondents.

Typewriters. A majority of the 83 respondents (81.0 percent) reported the use of the standard electric or selectric typewriter. Electronic typewriters with limited memory (five or fewer pages) were used by 46.0 percent of the firms, while 32.0 percent indicated the use of electronic typewriters with expanded memory, display, and interface capabilities. Only one firm (1.0 percent) reported the use of a non-electric typewriter.

Word Processors. Most of the 42 responding firms (69.0 percent) indicated the use of standalone word processors. A total of 28.0 percent reported using shared logic systems, and 26.0 percent specified the use of communicating word processors. Personal computers with word processing software compatibility were in use at the remaining three firms.

Methods of Purchasing Equipment

Memphis area firms were asked to indicate the methods they used to purchase various types of equipment. As Table 3 shows, firms purchase their equipment far more frequently than they rent or lease.*

Table 3

METHODS OF PURCHASING EQUIPMENT

Type of Equipment	Frequency	Buy		Rent		Partial Payout Lease		Full Payout Lease	
		Number	Percent	Number	Percent	Number	Percent	Number	Percent
Computers	80	62	77.5	4	5.0	7	8.8	7	8.8
Conferencing	15	9	60.0	4	26.7	2	13.3	-	-
Data Processing Systems	51	39	76.5	6	11.8	1	2.0	5	9.8
Dictation Equipment	60	44	73.3	4	6.7	1	1.7	11	18.3
Reprographics Systems	53	33	62.3	11	20.8	4	7.5	5	9.4
Telecommunications	47	32	68.0	9	19.1	3	6.3	3	6.3
Typewriters	83	81	97.6	1	1.2	1	1.2	-	-
Word Processors	45	37	82.2	4	8.8	3	6.7	1	2.2

Methods of Training Employees on Automated Office Equipment

A majority of the 86 respondents (73.0 percent) reported that employees usually receive on-site training using current employees as instructors. Other methods, such as vendor-provided on-site training, were checked by the remaining respondents.

Brands of Computers Used

Most of the firms responding (70.0 percent) specified the use of IBM computer equipment. Table 4 presents the responses of the 83 firms answering the question concerning the brand of computers currently being used.*

Table 4

BRAND NAMES OF COMPUTERS USED BY MEMPHIS AREA BUSINESSES
(N = 83)

Brand Name	Frequency	Percent
Apple	13	15.6
Basic Four	3	3.6
Burroughs	4	4.8
Compa Q	3	3.6
Datapoint	3	3.6
Digital	4	4.8
Honeywell	3	3.6
IBM	58	69.8
NCR	3	3.6
Sperry Univac	4	4.8
Tandy/Radio Shack	5	6.0
Texas Instruments	3	3.6
Wang	10	12.0
Other	12	14.5

Age of Computers

More than half of the 80 firms responding to this question (54.0 percent) indicated that most of their computer equipment was two to three years old. A total of 30.0 percent indicated that their computer equipment was four to five years old, while 26.0 percent reported equipment that was only a year old or less. A small number of firms reported using computers which were six or more years old.*

Types of Disks Used

Of the 78 firms responding to this question, most firms (70.0 percent) indicated the use of hard disks, while 67.0 percent reported the use of floppy disks. A total of 22.0 percent reported using mini-floppies, and 14.0 percent utilized flexible disks.*

Types of Printers Used with Computers

Many of the 74 computer system users responding to this question were utilizing more than one type of printer. Most of the respondents (77.0 percent) reported using dot matrix printers. A total of 36.0 percent indicated the use of daisy wheel printers. The remaining respondents (27.0 percent) reported the use of other types of printers such as line printers.*

Office Employees with Individual Computer Work Stations

Of the 83 firms responding, 36.0 percent reported that one to five of their office employees had their own

computer work stations. A total of 19.0 percent reported that 31 or more employees in their firms had their own computer work stations. Table 5 gives a breakdown of the responses to this question.

Table 5

NUMBER OF OFFICE EMPLOYEES WHO HAVE THEIR OWN COMPUTER WORK STATIONS

Number of Office Employees	Frequency	Percent
0	11	13.3
1 to 5	30	36.1
6 to 10	15	18.1
11 to 15	7	8.4
16 to 20	4	4.8
21 to 25	-	-
26 to 30	-	-
31 or more	16	19.3
Total	83	100.0

National Information Systems Utilized

Only 19 firms of the 89 responding indicated that they subscribed to one or more of the national information systems. A total of 32.0 percent of the 19 firms were accessing either dBase II or III data bank. A total of 21.0 percent utilized Compuserve, while another 21.0 percent indicated the use of the Dow Jones News/Retrieval Service. An additional 21.0 percent specified the use of information systems other than those appearing on the supplied list, such as Dedicated Lease Line.*

Types of Office Technology Applications in Use

Memphis area firms were asked to specify the types of office technology applications currently being used. They were instructed to check all technologies in use from both the accounting and professional support applications categories.*

Accounting Applications. Most of the 77 firms responding (79.0 percent) reported the use of computer-generated invoicing technology. A total of 66.0 percent checked the use of order processing applications, and 25.0 percent specified other types of accounting applications, such as inventory control. Only 3.0 percent of the responding firms indicated that accounting applications were not used.

Professional Support Applications. More than half of the 77 responding firms (54.0 percent) reported the utilization of word processing support applications. A total of 47.0 percent indicated that electronic spreadsheets were being used, and 39.0 percent indicated the use of data-based management systems. Data-based communication technology was used by 34.0 percent of the respondents; graphics were utilized by 32.0 percent. Only 5.0 percent of the respondents reported that no professional support applications were in use.

Summary and Conclusions

The results of this survey of 120 Memphis area businesses indicated that a majority of firms were utilizing various types of office technology.

A total of 93.0 percent of the 89 firms responding reported the use of computers, and most of the respondents used IBM computer equipment. A total of 87.0 percent of the firms indicated that some of their employees had their own computer work stations.

Service and/or maintenance and ease of use were reported to be the most important factors considered prior to purchasing office machines and equipment by most firms.

A majority of firms indicated that office machines and systems were generally purchased from local distributors.

Most of the firms reported that they purchase their equipment far more frequently than they rent or lease.

While only 21.0 percent of the respondents indicated the use of national information systems, 87.0 percent reported using accounting applications or professional support applications.

Memphis area businesses appear to be keeping pace with the national trend toward automation and are utilizing office automation technologies to increase productivity, control office costs, and improve overall profitability.

FOOTNOTES

*Percentages do not total 100.0 as several responding firms checked more than one category.

(continued from page 18)

FOOTNOTES

[1]Joe S. Bain, *Industrial Organization* (New York: John Wiley and Sons, Inc., 1968), pp. 133-136.

[2]Ibid., pp. 137-144.

[3]"Concentration Ratios in Manufacturing," Subject Series, *1977 Census of Manufactures* (Washington, D.C.: United States Department of Commerce, 1981), pp. 12-65.

[4]Bain, *Industrial Organization*, p. 144.

[5]Specific listings of the industries are available from the author upon request.

THE SOUTHERN CITY REVIEW

*Tom Clark and Shawn Massey**

This new quarterly column will present an overview of developments occurring in selected cities across the sunbelt. The authors will be discussing the trends which are taking place in the economy of the cities and the relevance these trends might have for the Mid-South. The trends which will be analyzed are not purely economic in nature; rather, they concern the quality of the economy or of the business environment in the selected areas. Influences such as municipal tax structures, new developments, trade, and innovations will be examined. Areas or topics will be highlighted which are expected to experience growth or decline in a boom or bust format.

PUBLIC FINANCE

(New Orleans) Faced with dwindling tax revenues directly related to the crash in Louisiana oil production resulting from foreign oil prices hitting a record low of $10.00 per barrel, the state legislature is more strongly contemplating legalized casino gambling and a state lottery than it ever has in the past. The state is searching for ways to generate revenues other than increasing personal and business tax burdens. Revenue from casino gambling could provide a sorely needed shot in the arm to the state's education budget which has received the brunt of the blow from falling oil-related revenues. Most of the new convention hotels which were built just prior to the opening of the World's Fair have more than adequate potential casino space in the form of under-utilized convention facilities. The word from persons inside the hotel industry is that it is apparently "just a matter of time" before gambling is legalized. If the OPEC cartel fails to tighten its grip on the production levels of its member nations, these outside forces may pressure the state legislature into pushing for these newer methods of public financing.

CITIES ON THE RISE

According to the *U.S. News and World Report*, the Atlantic Seaboard cities are the hottest spots for business in the United States. Charleston, South Carolina, with an urban population of 489,400, has the best business climate in the nation. With an increasing number of jobs in the services, financial, and high-tech areas, America's urban areas are joyfully experiencing renewed prosperity not seen during the last decade. In these cities unemployment is on the decline. Jobs are increasing. Incomes are rising. Retail sales are up, and residential construction is soaring. Other cities on the Seaboard that are sharing in this boom are Portland, Maine; Manchester, New Hampshire; Boston, Massachusetts; Miami, Florida; and New York City, New York. Although the East Coast is on the upswing, the South is not being left by the wayside. Atlanta is as strong as ever and shows no signs of weakening. Memphis is also starting to prosper as more companies become aware of the benefits of Memphis' distribution capability. (Memphis ranked 9th in the U.S. in the *U.S. News and World Report* article.) This lessening of the traditional biases which big businesses have against locating in southern states could be the wind of change that will put the South in step with the rest of the nation.

SHORTS . . . .

(Dade County, Florida) If your great aunt Betsy has a liquor license in Miami, you had better become her favorite niece or nephew. The Metro Commission announced that no new permits will be issued for at least the next 100 years. The current market license price rose dramatically to $50,000. The moratorium will not affect hotels and larger restaurants . . . .

(Huntsville, Alabama) Chrysler Corporation will lay off 200 workers in its Huntsville plants, shifting their

**Graduate Assistants with the Bureau of Business and Economic Research, Memphis State University, Memphis, Tennessee.*

functions to operations in Mexico. The company did, however, announce plans to consolidate its two Huntsville plants into a $60.0 million facility employing 3,000 workers. This represents the same number of workers as the two independent plants currently employ . . . .

(Atlanta, Georgia) The Fulton County Commission reported that because of an increase in new commercial development, no tax increase can be implemented for the county in the 1986 tax year . . . . The county is also expecting the current population boom to result in one million new residents in the county by the year 2010. This new population base will ultimately result in the creation of 300,000 new jobs.

(New Orleans, Louisiana) Multi-purpose department stores in the downtown area are closing their doors in the face of extensive competitive pressure from suburban shopping malls. Retailers cite the specialty shop trend and the ability of national firms to weather localized economic slumps as critical factors for the closings . . . .

(Nashville, Tennessee) State legislators voted to allow a referendum on the issue of a state lottery to go to the people for approval. State Senator Steve Cohen estimates that between $60.0 and $100.0 million in revenues could be generated by a lottery. Even if the people vote in favor of a lottery, the legislature must pass another bill to introduce one . . . .

The MID-SOUTH BUSINESS JOURNAL is available without charge. Please use this form to request a subscription or change an address and return to:

Bureau of Business and Economic Research
The Fogelman College of Business and Economics
Memphis State University
Memphis, Tennessee 38152

Check one:

☐ New subscriber

☐ Correction

Name and address:

Name _____

Address _____

City/State/Zip _____

Previous address for correction:

Address _____

City/State/Zip _____

51315 L2-4-1

2nd Quarter 1986

MID-SOUTH BUSINESS JOURNAL

Bureau of Business & Economic Research
The Fogelman College of Business and Economics
Memphis State University

MID-SOUTH BUSINESS JOURNAL

Volume VI, Number 3 July 1986

MEMPHIS STATE UNIVERSITY

Thomas G. Carpenter ..... President

THE FOGELMAN COLLEGE
OF BUSINESS AND ECONOMICS

J. Taylor Sims ..... Dean

BUREAU OF BUSINESS AND ECONOMIC RESEARCH

John E. Gnuschke ..... Director
James McFadyen ..... Managing Editor
B. Lewis Alvarado ..... Research Assistant
Shirley J. Stanphill ..... Research Editor

CONTENTS

Volume VI, Number 3 July 1986

CHARACTERISTICS OF UNIVERSITY-BASED EXECUTIVE EDUCATION PROGRAMS AT AACSB ACCREDITED INSTITUTIONS 3
Frederick Maidment

LAWYERS' ATTITUDES TOWARD ADVERTISING: A GUIDE FOR MARKETING PROFESSIONAL SERVICES 11
Allen M. Parkman, James L. Porter, Robert D. Rogers, and Fernando Robles

AGRIBUSINESS ISSUES WITHIN FORTHCOMING GATT NEGOTIATIONS: ASSESSING INTERNATIONAL MARKETING TRADEOFFS IN MULTIYEAR TALKS 15
Alfred C. Holden

ADEQUATE DISCLOSURE OF PENSION LIABILITIES: A SURVEY OF EXECUTIVE OPINION 22
Terrye A. Todd and Clyde L. Posey

LOCAL BUSINESS CYCLE ANALYSIS: MEASURING THE MEMPHIS ECONOMY 27
Dave Bourne

THE SOUTHERN CITY REVIEW 30

The MID-SOUTH BUSINESS JOURNAL is published quarterly by the Bureau of Business and Economic Research, Memphis State University, Memphis, Tennessee 38152, in the months of January, April, July, and October, as a service to the business community. Second-class postage paid at Memphis, Tennessee. POSTMASTER: Send address changes to Bureau of Business Research, Memphis State University, Memphis, Tennessee 38152.

The opinions expressed in the authored articles are not necessarily those of the Bureau, the College, or the University, but are the responsibility of the individual authors. The material may be reproduced without permission if acknowledgment of the source is given.

An Equal Opportunity/Affirmative Action University PS 6/86-1877

CHARACTERISTICS OF UNIVERSITY-BASED EXECUTIVE EDUCATION PROGRAMS AT AACSB ACCREDITED INSTITUTIONS

*Frederick Maidment**

In post-secondary education, great attention is being paid to the decline in college enrollment and to the fact that traditional financial support for post-secondary education has been reduced in both the public and private sectors. There is one area of post-secondary education, however, which has experienced growth over the past several years and which is generally expected to continue to grow in the foreseeable future—executive education.[1]

There have been estimations that the cost of corporate post-secondary education could be as large as $40.0 to $100.0 billion per year,[2] which alone would represent a significant part of post-secondary education. Consulting firms employ thousands of people, and the American Society for Training and Development includes over 14,000 members, enough to staff a significant number of faculties at major research-oriented universities.

Statement of the Research Problem

University-based executive education programs were defined for purposes of this study as non-academic credit educational programs designed by universities and colleges in the United States for executives in industrial organizations. The purpose of this study was to investigate the characteristics of university-based executive education programs at institutions accredited by the American Assembly of Collegiate Schools of Business. Of particular interest were the number of students per session, the number of programs per year, the number of university staff directly involved, the typical cost of a program to the client, the length of the program, how the faculty was compensated, and how much the faculty was compensated.

Significance of Research Problem

Many large universities are engaged in executive education programs. This education is often carried out as an activity of the graduate arm of the school of business administration. Often a university establishes an institute or some other similar administrative unit to conduct such programs for their corporate clientele. Executive education programs such as these are important to the university for five reasons: (1) they help establish and maintain contacts with the corporate world; (2) they give faculty exposure to business; (3) they assist the university in faculty development; (4) they operate at a profit, bringing in additional funds to the university in the form of fees; and (5) they enhance the reputation of the university for a potentially large source of financial support.

Since the university operates in a changing environment, the university seeks to maintain contact with the various important components of that environment. One of these components is composed of the businesses and corporations in which most of the graduates of the institution are going to seek their futures. The university has an obligation to establish and maintain a positive attitude on the part of the corporate world toward the university so that graduates of the institution may find a receptive group of potential employers upon graduation.

Purpose

This study examined the current status of university-based executive education programs. The study was designed to ascertain the characteristics of university-based executive education programs. Finally, the study provided a picture of the characteristics of university-based executive education programs at AACSB accredited institutions in business administration.

Delimitations of the Study

This study addressed educational programs developed for executives by universities accredited by the AACSB. Colleges and universities which were not accredited by the AACSB or did not have programs in business administration were excluded from the study. There were 241 institutions accredited by the AACSB as of fall 1984. This is not to say that other institutions did not engage in programs for executives or that such institutions did not offer programs of exceptional quality.

**Assistant Dean for External Affairs, College of Business and Administration, Southern Illinois University, Carbondale, Illinois.*

Overview of the Literature on Executive Education

Information on university-based executive education programs can be found in two sources: (1) the literature on training and development in industry, and (2) the literature on continuing education. This literature was separated into these two broad categories, based on the perspective of the writer.

The first category was taken from corporate literature. This literature was essentially "how to" in nature and often was concerned with the problems associated with training people inside the corporation. Generally speaking, the literature indicated that business training had three major characteristics:

> "(a) There is the unusually high motivation of the participants. All are adults who are learning under circumstances in which the rewards for success and penalties for failure are perceived by them to be high—involving present and future earnings as well as prestige, self-esteem, and the realization of career goals. (b) The work place is a setting for both learning and practice. (c) Corporate education is pragmatic in its orientation; that is, in its role as an instrument for achieving other goals—business profit, growth, and vitality—and in its accountability to a relatively narrow constituency. Corporate education is concerned with achieving limited and specific ends in the most economical and efficient way."[3]

Industry-Oriented Literature

While most of the literature on training and development dealt with the "how to" aspects of industrial training, there have been a few articles on the education and training relationship between business and academia. "Gilt-Edge Executive Training"[4] outlined the current situation in university-based executive education programs while it concentrated on several established programs at Harvard, Stanford, and Carnegie-Mellon. The author pointed out the difficulty of establishing this type of program at a university and predicted that many institutions will be entering this market during the 1980s.

Lusterman pointed out that education was becoming even more a part of corporate life. For example:

> "During the single recession year of 1975, the nation's 7,500 largest private employers, corporations with 500 or more employees . . . at least 1 out of 8 of the 32 million employees of these firms took part in some formal off-the-job education or training under company sponsorship."[5]

Academically-Oriented Literature

Over the past several years, academia has had increasing interest in executive education. Several studies have been conducted and reported on in the form of dissertations. These studies have concentrated on the degree programs offered by corporations,[6] evaluation of short-term training programs for industry and government,[7] development of techniques to measure teaching effectiveness with adult learners,[8] the scope of university-based executive education programs for executives at doctoral-granting institutions in business,[9] adult educational motives,[10] instructor techniques in continuing business education,[11] methods to access training needs,[12] and measurement of the impact of learning theory in the corporate environment.[13]

As can be seen, the concept of executive education is a very recent phenomenon. Prior to this time, relatively few articles per year on the subject were published. It would seem that academia has discovered a relatively dormant area of research which is about to be investigated.

Procedures and Methodology

This study addressed 10 principal questions:

(1) What was the number of programs per year?
(2) What was the number of executives per session?
(3) What was the curriculum content of the programs?
(4) What was the number of university staff directly involved?
(5) What was the typical cost of a program to a client?
(6) What was the length of the program?
(7) How was the faculty compensated?
(8) How much was the faculty compensated?
(9) What was the relationship of the program to the university?
(10) What was the perception of the status of the program on campus?

Sample

This study consisted of a survey of the deans of the colleges of business and administration of the 241 universities in the United States which at the time of the study were accredited in business by the AACSB. A rate of return of 54.0 percent was obtained, which was considered an acceptable sample so that the results of the study could be generalized.

Description of the Survey Instrument

The survey instrument was a questionnaire which was sent to all universities included in the sample. It was a slightly modified version of the "University-Based Executive Education Questionnaire."[14]

Procedure

The sequence of activities of this study, once the instrument had finally been designed, was as follows:

(1) The instrument and other appropriate materials were sent to all institutions in the sample. This mailing included a letter of introduction and an explanation; the instrument; and a stamped, addressed return envelope. The mailing was sent to the dean of the business school or the graduate school as appropriate.
(2) The next step was analysis. All responses were averaged and descriptive statistics, including frequency distribution, means, and standard deviations, were computed.

Statistical Methods

Responses to each question on the questionnaire were summarized. For each of the forced response questions, the frequencies and proportions of responses were calculated. A profile of the typical university-based executive education program was described.

Findings of the Study

The rate of return for the study was 54.0 percent, with 131 of the 241 institutions responding. Of those responding, 55.3 percent indicated they had an executive education program.

Number of Sessions Per Institution

Question 1 was: "What was the number of programs per year?" As may be seen in Table 1, the number of sessions ranged from 1 to 1,000 per year, with the average number of sessions at 86.3 per year.

Table 1

NUMBER OF SESSIONS PER INSTITUTION OF UNIVERSITY-BASED EXECUTIVE EDUCATION PROGRAMS AT AACSB ACCREDITED INSTITUTIONS

Number of Sessions	Frequency	Percent of Total
1	2	3.1
3	4	6.3
5	3	4.7
6	1	1.6
7	1	1.6
8	1	1.6
10	2	3.1
12	1	1.6
13	1	1.6
15	5	7.8
20	3	4.7
23	1	1.6
24	2	3.1
25	5	7.8
30	1	1.6
33	1	1.6
35	4	6.3
40	3	4.7
42	1	1.6
45	2	3.1
50	1	1.6
52	1	1.6
55	1	1.6
75	1	1.6
80	1	1.6
100	1	1.6
112	1	1.6
125	1	1.6
130	1	1.6
140	1	1.6
200	2	3.1
230	1	1.6
240	1	1.6
255	1	1.6
300	2	3.1
500	2	3.1
1,000	1	1.6
5,525	64	100.0

Average: 86.3

Number of Clients

Question 2 was: "What was the number of executives per session?" The number of clients for executive education programs ranged from a low of 7 to a high of 20,000 per year for the largest program. As may be seen in Table 2, the average number of clients for a university-based executive education program at the AACSB accredited schools was 2,231, or about 27 per session.

Table 2

NUMBER OF CLIENTS PER YEAR FOR EXECUTIVE EDUCATION PROGRAMS AT AACSB ACCREDITED SCHOOLS

Number of Clients	Frequency	Percent of Total
7	1	1.5
34	1	1.5
50	1	1.5
60	1	1.5
80	1	1.5
100	2	3.0
150	2	3.0
250	3	4.5
300	4	6.0
400	2	3.0
420	1	1.5
475	1	1.5
500	4	6.0
550	1	1.5
600	2	3.0
610	1	1.5
650	1	1.5
700	2	3.0
750	1	1.5
800	2	3.0
900	1	1.5
1,000	4	6.0
1,027	1	1.5
1,200	2	3.0
1,250	2	3.0
1,500	3	4.5
1,800	1	1.5
2,000	2	3.0
2,500	1	1.5
3,000	5	7.5
3,250	1	1.5
3,800	1	1.5
4,000	1	1.5
5,000	3	4.5
6,000	1	1.5
8,425	1	1.5
17,250	1	1.5
20,000	2	3.0
149,488	67	100.0

Average: 2,231

Curriculum Content

Question 3 was: "What was the curriculum content of the programs?" There were seven possible categories which the respondent could indicate. These responses were accounting, marketing, finance, quantitative analysis, management, computers, and other. While it was understood that nearly all programs had a managerial focus, the most popular area, as indicated by the respondents, was management. Indeed, as indicated in Table 3, nine institutions indicated that 100.0 percent of their programs

Table 3

CURRICULUM OF UNIVERSITY-BASED EXECUTIVE EDUCATION PROGRAMS AT AACSB ACCREDITED INSTITUTIONS

Percentage Having Particular Curriculum Content	Accounting		Marketing		Finance		Quantitative		Management		Computers		Other	
	Frequency	Percent of Total	Frequency	Percent of Total	Frequency	Percent of Total	Frequency	Percent of Total	Frequency	Percent of Total	Frequency	Percent of Total	Frequency	Percent of Total
1					1	1.8								
2	1	1.9					1	3.2			1	2.0		
3			1	1.9										
5	12	22.2	15	28.8	11	19.2	6	19.4	1	1.6	7	13.7		
6	1	1.9												
8													1	5.9
10	13	24.1	9	17.3	8	14.5	13	41.9	4	6.6	14	27.5	6	35.3
12	1	1.9												
13							1	3.2	1	1.6	1	2.0		
15	5	9.3	3	5.8	6	10.9	3	9.7	1	1.6	5	9.8	5	29.4
20	6	11.1	9	17.3	15	26.6	2	2.5	10	16.4	7	13.7	3	17.6
21											1	2.0		
24											1	2.0		
25	4	7.4	2	3.8	3	5.5			2	3.3	1	2.0		
30	2	3.7	5	9.6	4	7.5			3	4.9	4	7.8		
35	2	3.7			1	1.8			5	8.2				
40			2	3.8	1	1.8	1	3.2	6	9.8	4	7.8	1	5.9
45					1	1.8								
50	1	1.9			1	1.8	1	3.2	5	8.2	2	3.9		
55									2	3.3				
58									1	1.6				
60	1	1.9	1	1.9					3	4.9				
65									1	1.6			1	5.9
67									1	1.6				
70									4	6.6	1	2.0		
75									1	1.6				
80	2	3.7									1	2.0		
82									1	1.6				
90					1	1.8								
100	3	5.6	5	9.6	4	7.3	3	9.7	9	14.8	3	2.0		
	54	100.0	52	100.0	55	100.0	31	100.0	61	100.0	51	100.0	17	100.0
Weighted Percentage of Programs		13.8		14.1		15.3		7.4		33.1		12.6		3.5

were directed toward the management area of curriculum content. Also, it should be noted that a particular program could focus on more than one aspect of curriculum content. For example, finance and marketing could be combined into a seminar on the marketing of certain financial services. For all programs at the 72 institutions which indicated they had executive education programs, on average, 13.8 percent were in accounting, 14.1 percent focused on marketing, 15.3 percent dealt with finance, 7.4 percent involved quantitative analysis, 33.1 percent included management, 12.6 percent contained computers, and 3.5 percent utilized other areas of curriculum.

Some of the other areas of curriculum indicated by these institutions were:

Writing	Economics
Time Management	International Trade
Secretarial	Business/Government
Public Utilities	Strategy
Strategic Management	Production
Small Business	Operations Management
Communication	Textiles
Human Resource Management	Organizational Behavior

Number of People Employed by the Institution

Question 4 was: "What was the number of university staff directly involved?" As may be seen in Table 4, the number of full-time administrators ranged from a high of 20 to a low of 0, with 18 institutions reporting 1 full-time administrator. The average for the 48 institutions reporting full-time administrators was 3.7. Part-time administrators were reported by 10 of the institutions, with 1 part-time administrator in 70.0 percent of those programs. Fifty-five of the respondents reported part-time faculty, with 22 reporting 1 faculty member assigned to the program on a part-time basis and 24 programs reporting 2 regular part-timers.

Full-time faculty were indicated by 27 programs, ranging from a low of 1 for 14 of the programs to a high of 40 for 1 of the programs. Programs with full-time faculty averaged

Table 4

NUMBER OF PEOPLE EMPLOYED IN EXECUTIVE EDUCATION PROGRAMS AT INSTITUTIONS ACCREDITED BY THE AACSB

Number of People Employed	Administrative Personnel				Faculty			
	Full-time		Part-time		Part-time		Full-time	
	Frequency	Percent of Total	Frequency	Percent of Total	Frequency	Percent of Total	Frequency	Percent of Total
.5	1	2.1	1	10.0				
1	18	37.5	7	70.0	22	40.0	14	51.9
2	5	10.4	1	10.0	24	43.6	2	7.4
3	6	17.5			5	9.1		
4	4	8.3			1	1.8		
5	1	7.1					1	3.7
6	5	10.4			2	3.4	5	18.5
7	4	8.3						
8	1	2.1						
10							1	3.7
12	1	2.1					1	3.7
13	1	2.1						
14							1	3.7
17			1	10.0	1	1.8		
20	1	2.1						
35							1	3.7
40							1	3.7
	48	100.0	10	100.0	55	100.0	27	100.0
Weighted Percentage of Program		36.7		5.4		24.2		33.7

5.7 faculty members, while the average for all 72 programs was 2.1.

Cost of the Program

Question 5 was: "What was the typical cost of the program to the client?" As indicated in Table 5, 58.0 percent of the programs cost $500 or less each, while over one-third were below $250.

Table 5

COST OF UNIVERSITY-BASED EXECUTIVE EDUCATION PROGRAMS AT AACSB ACCREDITED INSTITUTIONS

Range of Payments	Frequency	Percent of Total
0 - $ 250.00	21	36.2
$ 250.00 - $ 500.00	13	22.2
$ 501.00 - $1,000.00	8	13.8
$1,001.00 - $1,500.00	2	3.4
$1,501.00 - $2,000.00	2	3.4
$2,001.00 - $2,500.00	3	5.2
Over $2,500.00	9	15.5
Total	58	100.0

Length of Program

Question 6 was: "What was the length of the program?" There were four categories in which the respondents were asked to indicate the percentage of their university-based executive education programs which were of a particular length. As indicated in Table 6, these categories were 1 or 2 days or less, 3 - 5 days, 6 - 10 days, 11 - 15 days, 16 - 20 days, and over 20 days. Most institutions emphasized the short course, with almost 70.0 percent of the programs of 5 days or less duration.

Faculty Compensation Methods

Question 7 was: "How was the faculty compensated?" There were four different ways in which the faculty were compensated, including contractual method, hourly method, straight salary method, and other. As may be seen in Table 7, 52.3 percent of all programs used the contractual method; 34.9 percent used the hourly method; 3.1 percent used the straight salary method; and 9.7 percent used other methods.

Faculty Compensation Amount

Question 8 was: "How much was the faculty compensated?" There were seven categories in which the respondents could indicate the percentage of the compensation amount in which their institutions participated. These categories were based on an instructional hour and were less than $50, $50 - $99, $100 - $149, $150 - $199, $200 - $249, $250 - $500, and over $500 per hour of instruction. As may be seen in Table 8, for all university-based executive education programs, 4.5 percent paid faculty less than $50 per hour of instruction; 32.0 percent paid faculty $50 - $99 per instructional hour; 34.5 percent paid $100-$149 per instructional hour; 7.3 percent paid $150 - $199

Table 6

LENGTH OF UNIVERSITY-BASED EXECUTIVE EDUCATION PROGRAMS AT AACSB ACCREDITED INSTITUTIONS

Percent Having Particular Curriculum Content	1 or 2 Days		3-5 Days		6-10 Days		11-15 Days		16-20 Days		Over 20 Days	
	Frequency	Percent of Total	Frequency	Percent of Total	Frequency	Percent of Total	Frequency	Percent of Total	Frequency	Percent of Total	Frequency	Percent of Total
1									1	7.1		
2					1	4.0			1	7.1		
3									1	7.1		
4							1	7.1				
5			3	5.7	3	12.0	1	7.1	2	14.3	4	25.0
8			1	1.9								
10	1	2.0	6	11.3	4	16.0	5	35.7	4	28.6	2	12.5
13	1	2.0										
15	2	4.1	3	5.7			1	7.1				
17			2	3.8								
20	6	12.2	6	11.4	6	24.0			3	21.4	1	6.3
21					1	4.0						
23			1	1.9								
25	4	8.2	3	5.7	1	4.0			1	7.1	1	6.3
30	1	2.0	5	9.4	2	8.0					2	12.5
33	1	2.0					1	7.1			1	6.3
35			1	1.9								
36			2	3.8								
40	2	4.1									1	6.3
50	2	4.1	4	7.5	1	4.0	1	7.1	1	7.1		
54	1	2.0										
60	3	6.1	3	5.7	2	8.0					2	12.5
63			1	1.9								
65	2	4.1										
70			4	7.5			1	7.1				
75	2	4.1	2	3.8								
80	8	16.3	2	3.8	1	4.0						
84	1	2.0										
85	2	4.1										
90	5	13.6										
96	2	4.1	1	1.9								
100	3	6.1	3	5.7	3	12.0	3	2.4			2	12.5
	49	100.0	53	100.0	25	100.0	14	100.0	14	100.0	16	100.0
Weighted Percentage of Total		40.8		29.4		11.9		7.5		2.7		7.7

Table 7

FACULTY COMPENSATION METHODS OF UNIVERSITY-BASED EXECUTIVE EDUCATION PROGRAMS AT AACSB ACCREDITED INSTITUTIONS

Percent Having Particular Curriculum Content	Contractual		Hourly		Straight Salary		Other	
	Frequency	Percent of Total	Frequency	Percent of Total	Frequency	Percent of Total	Frequency	Percent of Total
1							1	11.1
2					1	20.0		
5	1	2.1	2	6.7				
10	2	4.2					1	11.1
15	1	2.1						
20	5	10.4			1	20.0		
25	1	2.1	1	3.3	1	20.0		
30	2	4.2						
50	1	2.1						
70			2	6.7				
75			1	3.3				
80			5	16.7	1	20.0		
90			3	10.0				
95							1	11.1
98	1	2.1						
100	34	70.8	16	53.3	1	20.0	6	66.7
	48	100.0	30	100.0	5	100.0	9	100.0
Weighted Percentages		52.3		34.9		3.1		9.7

Table 8

FACULTY COMPENSATION AMOUNTS

Percentage Having Particular Curriculum Content	Amount Per Instructional Hour													
	Less Than $50.00		$50.00-$99.00		$100.00-$149.00		$150.00-$199.00		$200.00-$249.00		$250.00-$500.00		Over $500.00	
	Frequency	Percent of Total	Frequency	Percent of Total	Frequency	Percent of Total	Frequency	Percent of Total	Frequency	Percent of Total	Frequency	Percent of Total	Frequency	Percent of Total
2	1	12.5												
3									1	7.1				
5			2	5.9	1	2.5	2	10.5	2	14.3	2	15.4	3	37.5
10	2	25.0	1	2.9	6	15.0	6	31.6	2	14.3	4	30.8	1	12.5
15			1	2.9			1	5.3						
20			3	8.8	3	7.5	1	5.3	2	14.3	1	7.7	1	12.5
25	2	25.0	2	5.9	2	5.0	2	10.5						
30					1	2.5	2	10.5			1	7.7		
35					1	2.5	1	5.3						
40			1	2.9	1	2.5								
50			2	5.9	4	10.0	3	15.8	2	14.3				
60			2	5.9					2	14.3				
65			1	2.9							1	7.7		
70			1	2.9	1	2.5								
75			1	2.9	5	12.5								
80	3	37.5	4	11.8							1	7.7		
85			1	2.9	4	10.0								
90			4	11.8	2	5.0			1	7.1				
95											1	7.7		
100			8	25.5	9	22.5	1	5.3	2	14.3	2	15.4	3	37.5
	8	100.0	34	100.0	40	100.0	19	100.0	14	100.0	13	100.0	8	100.0
Weighted Percentage of Total		4.5		32.0		34.5		7.3		8.6		7.9		5.1

per instructional hour; 8.6 percent paid $200 - $249 per instructional hour; 7.9 percent paid $250 - $500 per instructional hour; and 5.1 percent paid instructors $500 per instructional hour.

Relationship of the Programs to the University

Question 9 was: "What was the relationship of the program to the university?" Most of the programs were offered by departments of the business college (36 out of 72), five were offered by the graduate school, three were a separate unit of the university, five were offered by another unit of the university, eighteen were offered in other ways, and five did not respond to the question. The eighteen others included the college of business and the division of continuing education combined, the graduate school of management and university extension, and one program offered was a function of the dean's office.

Prestige of the Program on Campus

Question 10 was: "What was the perception of the status of the program on campus?" Respondents were asked what they thought of the relative prestige of the executive education programs on their campuses. Thirteen of the respondents strongly agreed that the programs were very prestigious, 27 agreed, 26 neither agreed nor disagreed, while 5 disagreed with the assertion. These figures would seem to indicate that the programs were generally held in relatively high esteem on the particular campuses.

Summary

The findings of this study seemed to indicate that executive education is a growing part of the make-up of the business college. The data revealed that the average program had nearly 90 sessions per year, with an average of 27 people per session. From the data, it was possible to extrapolate that almost 300,000 executives participated in these programs at universities that paid close to $500 per program for courses which usually lasted less than one week. This meant that executive education at AACSB accredited colleges and universities was a $150 million per year business—a very small segment of an estimated $40 to $100 billion per year expenditure for education in business and industry, but one with growth potential.

Faculty were usually compensated either by a contractual agreement or on an hourly basis, with 66.0 percent of the compensation ranging between $50 and $150 per instructional hour.

The college of business usually offered the programs, but other arrangements existed on campuses, including the programs being offered by the graduate school, a separate unit of the university, and another unit of the institutions. The institutions tended to have one person responsible for the programs. Generally speaking, the respondents felt that the university-based executive education programs were fairly prestigious on campus, with only 5 of the 71 respondents to the question actually disagreeing with the assertion that "the executive education program on your campus is considered very prestigious."

Management was the most common focus of the curriculum, with one-third of the course of study being

focused in this area. Marketing, finance, and computers were also popular.

Conclusion

Executive education at AACSB accredited institutions represents only a small portion of the area to be researched in education for business and industry. More study is needed in the areas of education conducted by and for corporations, as well as other levels of the academic community, and non-AACSB accredited institutions. This could include professional colleges, community colleges, and institutes. Also, the efforts on the part of the various professional associations of accountants, bankers, salesmen, and managers in the area of education need to be examined as well as the efforts of private consultants and organizations.

American industry has developed its own educational complex, the size and scope of which makes it close to equal to higher education in the U.S., yet little is known about the various aspects of the efforts of business and industry to meet the changing educational needs of their employees.

Footnotes

[1]G. Maeroff, "Gilt-Edge Executive Training," *The New York Times*, 9 September 1979, pp. 1, 16.

[2]N. Eurich, *Corporate Classrooms: The Learning Business* (Lawrenceville, N.J.: Princeton University Press, 1985).

[3]S. Lusterman, "Education in Industry," *Lifelong Learning*, 1, 10, 8-9; 38-39.

[4]Maeroff, loc. cit.

[5]Lusterman, loc. cit.

[6]Jeanette S. Baker, "An Analysis of Degree Programs Offered by Selected Industrial Corporations" (Ph.D. diss., University of Arizona, 1983).

[7]Olivia Lowey, "A Summative Evaluation of a Short-Term Training Program for Middle Management Government Employees Involving Their Application of a Goal Setting Procedure to On-Site Job Performance" (Ph.D. diss., University of Southern California, 1983).

[8]John Brown-Parker, "The Design, Development, and Field Testing of a Technique to Measure the Effectiveness of Adult Education Instructors in Managing Their Verbal Communication of Intent When Establishing the Instructor/Learner Relationship" (Ph.D. diss., Michigan State University, 1983).

[9]Frederick Maidment, "University-Based Executive Education Programs" (Ed.D. diss., University of South Carolina, 1983).

[10]Creonice M. Lawson, "Adult Educational Motivations: Perceived Instrumentality and Values" (Ph.D. diss., University of Missouri, Columbia, 1983).

[11]Rolf Zerges, "Instructor Behaviors Valued by Continuing Education Business Students Related to Student Personality Type, Sex, and Program Major" (Ph.D. diss., Cornell University, 1984).

[12]Bartrom Beaudin, "Data Collection Methods Used for Determining Training Needs of the Organization and the Adult Learner in Business and Industry" (Ph.D. diss., The Ohio State University, 1983).

[13]Carolyn Collins-Bondon, "An Investigation of the Impact of Learning Theory on Training and Conditions of Training in the Corporate Environment" (Ed.D. diss., Western Michigan University, 1983).

[14]Maidment, loc. cit.

LAWYERS' ATTITUDES TOWARD ADVERTISING: A GUIDE FOR MARKETING PROFESSIONAL SERVICES

*Allen M. Parkman, James L. Porter, Robert D. Rogers, and Fernando Robles**

The marketing of legal services has become an important new area of study and practice (Taylor & Mathias, 1983; Darden et al., 1981; Smith & Meyer, 1980; *Business Week*, 1983). Over the last decade a number of U.S. Supreme Court decisions have declared illegal certain rules of professional associations which restrict the ability of individual practitioners to effectively market their services (Whitman, 1978). Of particular interest is *Bates v. State Bar of Arizona*, 97 S. Ct. 2691 (1977), which provided the initial opportunity for attorneys to pursue limited forms of advertising. Although some studies have shown that many lawyers oppose advertising, these same studies have shown that within the profession there are differences of opinion (Shimp & Dyer, 1978; Dyer & Shimp, 1980). The reasons for these differences may be important for marketers and lawyers. If the animosity toward advertising is based on an uninformed view that advertising is not appropriate for and below the dignity of professionals (Kotler & Conner, 1977), then an educational effort directed at attorneys could prove fruitful in increasing the demands for the services of advertising marketers. On the other hand, if the animosity is based on self-interest and the fundamental nature of the services which professionals sell, then the opportunities for growth of this market will be more limited.

In this article the authors developed a model which argues that the animosity of some attorneys toward advertising is not based on naivete. The hostility of lawyers opposed to advertising is based on a combination of self-interest and the nature of legal services. Since some lawyers should benefit from the ability to advertise while others could be hurt, hypotheses about the types of lawyers who would support or oppose advertising were generated and tested.

**The authors are, respectively, Professor of Management, Associate Professor of Management, and Assistant Professor of Management, University of New Mexico, Albuquerque, New Mexico; and Associate Professor of Business Administration, George Washington University, Washington, D.C.*

The Analytical Framework

The groups that would benefit or, alternatively, be hurt by advertising were analyzed first. The analysis was based on the effects of advertising on the incomes of different groups of attorneys. Economics provides a framework for analyzing the processes used by individuals in arriving at decisions. It is recognized in the economics literature that individuals act in a manner which tends to maximize their perceived welfare subject to their constraints. Since profits are the primary component of the welfare of sellers in most markets, profit maximization by sellers is just an extension of the usual economic assumptions of welfare maximization by individuals. The application of welfare maximization to producer behavior has provided interesting results in situations where producers have not traditionally been viewed as operating in economic markets. For example, substantial literature has developed around the motives of elected officials and bureaucrats (Niskanen, 1971). Accordingly, it appears appropriate to view lawyers as individuals who act in a manner which tends to maximize their individual welfare, a major component of which is their income.

The use of a framework based on self-interest provides valuable insights into the reasons why the establishment bar created a code of ethics which prohibited advertising and why many lawyers continue to be either ambivalent or hostile about advertising their services. One explanation for this ambivalence and/or hostility is the incentive for each lawyer to be a price-discriminating oligopolist, i.e., a seller in a market in which there are a limited number of sellers who offer unique and often non-interchangeable services. The ideal situation for any seller is for potential customers to know that he exists and that the product he is selling is valuable, but not to know of the existence of substitutes. By segmenting the market and selling to customers based on the strength of their demands, the seller can increase his profits. This situation describes the conditions facing a price-discriminating monopolist. However, because only very few lawyers can attain this monopolistic status, it is more appropriate to describe lawyers as oligopolists. The less informed consumers are about alternative lawyers, the higher the price a given lawyer can charge. A lawyer's ability to price discriminate

is inherent in the nature of the personalized services rendered by attorneys. Therefore, the desire of attorneys to be price-discriminating oligopolists leads to the first hypothesis: *Attorneys in private practice, on average, will oppose advertising.* The rationale for this hypothesis is that advertising would increase consumers' knowledge of alternative sources of legal services.

This opposition to advertising is not expected to be universal. Established attorneys benefit more from a prohibition of advertising than do new attorneys. In fact, new attorneys are doubly hurt by a prohibition of advertising. First, it is difficult for them to let customers know they exist. Second, they are forced to seek employment with established firms to gain exposure. The well-established firms are limited in number. These firms compete to a certain extent for the services of new graduates. However, because of their perceived market power and the imperfect information available in complex labor markets, established law firms are able to hire new graduates at a wage which is less than the value of the new lawyers' output. This leads to a second hypothesis: *Established attorneys will support restrictions on advertising more than will new attorneys.*

It is also expected that a lawyer's attitude toward advertising will be influenced by his type of practice. Lawyers sell a variety of services. They would like for consumers to know they exist and that they are willing to provide certain services. However, neither the provision nor acquisition of information is a costless process for the parties involved (Stigler, 1961; Ozga, 1960). There are a number of ways in which information can be disseminated. The advantages of advertising versus other means of promoting a business vary, of course, with the types of services being produced.

The search by consumers for information will be pursued so long as the benefits of additional search are believed to exceed the additional costs in terms of money and time. Advertising can be a valuable means of disseminating information which attracts clients in situations where the services offered for sale are relatively homogenous, the potential customers comprise a large percentage of the individuals exposed to the advertisement, and each potential buyer receives only limited benefits from additional search and, therefore, would not spend substantial resources on search. Routine legal services appear to have some of these attributes. An uncontested divorce is perceived to be essentially the same service regardless of the attorney handling the case. Relative to other legal services, this service may be required by a large percentage of the population. Because consumers probably feel that most attorneys are capable of providing competent service, they would be expected to use the attorney who is most readily available. Under these circumstances, advertising may be a valuable means for attracting clients for attorneys.

At the other end of the spectrum of legal services are services which are highly unique. Only a limited number of people need the service at any time and, because of the potentially large benefits of search, the consumer would be willing to commit substantial resources to search. For these services, other forms of promotion would be more effective than advertising. Advertising would not appear to be appropriate for supplying useful information to clients in need of an attorney in a complicated securities transaction. Sophisticated services are by definition not homogeneous. Since the clients for sophisticated services know that choosing the wrong attorney can be extremely costly, they have incentives for spending substantial resources to find the most suitable attorney. For sophisticated services, lawyers must attempt to become known to the market through other means. This leads to the third hypothesis: *Lawyers who specialize in simple bankruptcy and family practice, for example, will support advertising, while lawyers in broader and more complex areas such as security and tax law will be hostile, or at best ambivalent, toward advertising.*

Lawyers who practice in groups rather than as sole practitioners can be expected to oppose advertising for both of the reasons given above. First, the limits on advertising tend to permit them to exploit new attorneys. This attitude would be adopted even by the young attorneys in firms, as they are looking forward to the opportunity to exploit the next generation of law graduates. Second, a large law firm is similar to a department store in that it produces a variety of services for potential clients. Since firms provide a variety of services, advertising is probably not an effective means for them to communicate with potential clients. On the other hand, because of the limits on their time, lawyers in sole practice are forced to specialize. As indicated above, advertising is more likely to be an effective means of promoting a specialized practice. This leads to the fourth hypothesis: *Lawyers in group practice will be less favorably inclined toward advertising than will lawyers in sole practice.*

Advertising is only one way of conveying information to potential clients. In small communities, the reputations of local attorneys are known or are readily obtainable and, therefore, advertising is less desirable for them. Larger cities, of course, present a different situation. This, therefore, leads to the last hypothesis: *Lawyers in larger cities will be more likely to support advertising than will lawyers in smaller towns.*

Based on the discussion above, the following hypotheses were explored in this study:

- H1: Attorneys in private practice will oppose advertising.
- H2: Established attorneys will support restrictions on advertising more than will new attorneys.
- H3: Lawyers who specialize in bankruptcy and family practice will support advertising.
- H4: Lawyers in group practice will not support advertising, while it will be supported by lawyers in sole practice.
- H5: Lawyers in larger cities will be more supportive of advertising than will lawyers in smaller towns.

The Sample

The method used to collect the primary data in this study was a sample survey. The questionnaire consisted of

two parts. The first part focused on the characteristics of the respondent and his or her firm, while the second part consisted of the respondent's opinion about 44 statements dealing with different aspects of advertising legal services. The universe used for the study was defined as all practicing lawyers in the state of New Mexico in 1981. The sample was selected from the 1981 *Directory of New Mexico Bench and Bar* published by the State Bar of New Mexico. The total number of entries in the directory was 2,178. The list was alphabetized and every third name on the list was selected, for a total sample of 726. The response rate was 31.0 percent or 216 responses. The characteristics of the sample are shown below:

Characteristics of the Sample

Average Years in Practice	13.5 years
Average Age of Respondent	40.8 years
Average Number of Attorneys in Firm	8.7 lawyers
Percent of Respondents in Private Practice	77.1%
Percent of Respondents in Group Practice	66.1%
Percent of Respondents Who are Male	85.5%

To test the hypotheses in this study, the focus was on 4 of the 44 statements contained in the questionnaire. The statements used in this study are presented in Table 1. The first statement deals with the respondent's opinion about whether advertising would be beneficial to him or her. Whether advertising would have a detrimental effect on society was the issue addressed by the second statement. The last two statements deal directly with the issue of whether the prohibition of advertising was intended to protect certain elements of the legal profession: larger firms and established attorneys. The responses were scored on a five-point Likert scale (1, strongly disagree, to 5, strongly agree).

Table 1
STATEMENTS USED IN THE ANALYSIS

Statement
1. Advertising, in general, is not a valuable way to communicate with potential clients.
2. Advertising by lawyers will have a detrimental effect on the practice of law in my community.
3. The law profession's ethical canon against advertising was not designed to protect larger firms from the competition of smaller law firms.
4. The law profession's ethical canon against advertising was not intended to protect established lawyers from competition from new lawyers.

Discriminant analysis was used to determine if the variables identified above could differentiate between the groups who support or oppose restrictions on advertising by attorneys. Discriminant analysis weighs and linearly combines the independent variables in some fashion so that the different groups of respondents are differentiated as much as possible. In this study, two categories of responses were used as the criterion variable: (1) those agreeing (strongly or moderately), and (2) those disagreeing (strongly or moderately). All other responses to a statement were eliminated from the analysis.

The discriminating variables used in the analysis were:

Years:	The number of years the respondent had been in legal practice
Private:	If the respondent was in private practice
Group:	If the respondent was either an associate or a partner in a law firm
Specialist:	If the specialization of the respondent was in either bankruptcy or family practice
Urban:	If the respondent practiced in either Albuquerque or Santa Fe

Discriminant analysis provides two types of output that is especially valuable in identifying the characteristics which differentiate two groups of respondents. First, it produces a discriminant function representing a dimension along which the respondent groups differ. The coefficients of the discriminant variables composing this function, when in standarized form, tell the relative importance of each of the independent variables. At the same time, tests can be made to determine if a variable makes a statistically significant contribution toward differentiating between the groups. The second output result of the discriminant function is to use the discriminant function to classify a new data set. This is an important technique for validating the general applicability of the discriminant function. The method used for validation consisted of splitting the sample data and using one-half the data to derive the discriminant functions and then applying those functions to the remaining data.

Results

The results of the discriminant analysis are presented in Table 2. The results tended to conform to the hypotheses. The discriminant coefficients indicated that the most important discriminators of attitudes were years of practice, private practice, and whether a lawyer was in a group. In terms of statistical significance, "group" was significant at the .05 level in all four functions, while "years of practice" and "private practice" were significant in three. In no case were the coefficients of "specialist" or "urban" statistically significant; however, the analysis above was supported by the fact that both characteristics had a negative relationship with statements 1 and 2, which were the general attitudinal statements.

The discriminant functions from half the sample were used to predict over half the responses of the other half of the sample in all four cases. In three of the four functions the classification of the validation sample was statistically significant at the .05 level using a chi-square test.

Discussion

Overall, the results of this analysis were encouraging. Since advertising was prohibited until 1977, very few attorneys have formed a consistent attitude toward it. While a prohibition on advertising would appear to be beneficial to established attorneys, especially those in larger firms, for most other types of lawyers the advantages of advertising are probably limited. Therefore, it was not

Table 2

DISCRIMINANT ANALYSIS RESULTS

	Statement 1		Statement 2	
Coefficients	Stand. Disc. Func. Coef.	Univar. F-Ratio	Stand. Disc. Func. Coef.	Univar. F-Ratio
Years	.71	17.5**	.66	11.4**
Private	.42	16.5**	.30	12.0**
Group	.49	8.1**	.52	6.0*
Specialist	-.19	1	-.31	3.2
Urban	-.22	6	-.30	1.7
Validation Sample				
Correctly Classified	64/7**		55/7	

	Statement 1		Statement 2	
Coefficients	Stand. Disc. Func. Coef.	Univar. F-Ratio	Stand. Disc. Func. Coef.	Univar. F-Ratio
Years	.55	1.5	.89	11.2**
Private	.07	2.1	.06	4.7*
Group	.84	5.3*	.65	4.0*
Specialist	-.39	.8*	.15	.5
Urban	.08	1	.04	1
Validation Sample				
Correctly Classified	62/7*		75/7**	

Level of significance:

** > .01.
* > .05

surprising that the attorneys' responses to the questions about advertising were not particularly systematic.

Although all law firms could improve their promotional activities, this study tended to indicate that law firms are not as naive about their self-interest as some may have thought. Rather than attempting to convince all lawyers that they would benefit from advertising, individuals in marketing should focus only on the groups of lawyers who would benefit from advertising, such as young lawyers and probably some specialists and urban lawyers. Additional research is necessary to determine the form of advertising that will provide potential clients with relevant information in the most cost-effective manner.

Summary

This study concluded that the restriction on advertising that was contained in the lawyers' Code of Professional Responsibility was based on a rational process. The primary beneficiaries were established lawyers in larger firms. It would appear that these attorneys were able to dominate the other attorneys because most of the other attorneys were either new or in areas of the law for which advertising was not appropriate. However, the study argued that there are a large number of attorneys who would benefit from advertising and these lawyers recognize their need. It is now up to marketers to assist these lawyers in formulating an advertising program.

References

Darden, Donna K., William R. Darden, and G. E. Kiser. "The Marketing of Legal Services." *Journal of Marketing*, 45 (Spring 1981), 123-134.

Dyer, Robert F. and Terence A. Shimp. "Reactions to Legal Advertising." *Journal of Advertising Research*, 20, No. 2 (April 1980), 43-51.

Kotler, Phillip and Richard A. Conner, Jr. "Marketing Professional Services." *Journal of Marketing*, 41, No. 1 (January 1977), 71-76.

Niskanen, William. *Bureaucracy and Representative Government*. Chicago: Aldine-Atherton, 1971.

Ozga, S.A. "Imperfect Markets Through Lack of Knowledge." *Quarterly Journal of Economics*, LXXIV (February 1960), 29-52.

Shimp, Terence and Robert Dyer. "How the Legal Profession Views Legal Service Advertising." *Journal of Marketing*, 42, No. 3 (July 1978), 74-81.

Smith, Robert E. and Tiffany S. Meyer. "Attorney Advertising: A Consumer Perspective." *Journal of Marketing*, 44 (Spring 1980), 56-64.

Stigler, George J. "The Economics of Information." *Journal of Political Economy*, LXIX, No. 3 (June 1961), 213-225.

Taylor, Mark B. and Alicia M. Mathias. "The Impact of T.V. Advertising Versus Word of Mouth on the Image of Lawyers: A Projective Experiment." *Journal of Advertising*, 12, No. 4 (1983), 42-49.

"The Blue Chip Lawyers Discover Marketing." *Business Week*, 25 April 1983, pp. 89-93.

Whitman, Douglas. "Advertising by Professionals." *American Business Law Journal*, 16, No. 1 (Spring 1978), 39-65.

AGRIBUSINESS ISSUES WITHIN FORTHCOMING GATT NEGOTIATIONS: ASSESSING INTERNATIONAL MARKETING TRADEOFFS IN MULTIYEAR TALKS

*Alfred C. Holden**

Introduction

In mid-September 1986, it appears that the 90 signatories of the General Agreement on Tariffs and Trade (GATT) will officially commence an eighth formal round of post-war international trade negotiations. As the participant most anxious to initiate this bargaining process, the U.S. Government is supporting an ambitious agenda. Explicit goals are to reduce barriers for trade in agricultural products, services, technologies, and investment and to improve existing international rules for industrial goods (Reagan, 1985). The intention is to upgrade international marketing opportunities for innovative companies in agribusiness, in a variety of service activities, and in manufacturing.

American business executives have every reason to applaud initiation of multilateral negotiations. However, the issues are complex and successful resolution will involve multi-year discussions and probably require eventual compromise in all sectors and by all parties. In part, many GATT signatories are expecting progress only if significant concessions are put forth initially by the U.S., the 12-nation European Community (EC), and Japan, the world's commercial trading leaders.

Overhanging business calculations about the forthcoming trade round should be a realization that recent American initiatives within GATT and in bilateral talks with the EC, Japan, and others have not always been harmonious. The landmark 1982 GATT ministerial meeting clearly demonstrated, for example, that excessive U.S. expectations about foreign willingness to consider fundamental reforms and complex tradeoffs will inevitably be followed by excessive letdown.

Nonetheless, U.S. marketing executives can be relatively optimistic about the September 1986 opening. There is now recognition in many capitals that net benefits could accrue if the worst inequities can be remedied, especially in farm products trade. At a minimum, a dangerous slide toward sectional restrictionism and bilateralism could be reversed, a fiscal burden could be eased upon a number of governments (including Brussels and Washington), and some of the indebted, less-developed countries (LDCs) could benefit by having the flexibility to negotiate multilaterally.

This article examines the background issues and possible tradeoffs which could lead to a liberalization in global agricultural trade within the GATT negotiations.

GATT's Role in World Commercial Transactions

GATT emerged almost by chance during 1947 as an organization of like-minded countries seeking to rid the post-war world of the inter-war evils of trade restrictionism and bilateralism (Hudec, 1975). Following its somewhat inauspicious start as a temporary trade agreement (within broader negotiations for an ill-fated International Trade Organization), GATT has presided over an impressive expansion in world trade. Global merchandise exports of approximately $60.0 billion in 1950 reached $120.0 billion in 1960, $285.0 billion in 1970, and $1,875.0 billion in 1980 before entering a cycle of stagnation and modest recovery during 1981-85 (IMF, 1985).

GATT's role has expanded in three important directions during its nearly 40 years of existence: (a) provision of a general code of conduct; (b) establishment of machinery for settling disputes; and (c) maintenance of a set of trade rules.

From headquarters in Geneva, the organization oversees trade linkages based upon the bedrock most-favored-nation (MFN) principle (Jackson, 1969). Meanwhile, annual meetings permit signatories to review conditions and to discuss issues of interest to members.

Bilateral trade disputes can be brought before GATT for adjudication. For example, 33 panels were created between October 1978 and March 1985 to facilitate this GATT responsibility. One-third of those involved cases brought by Washington against import restraints or export subsidies of Japan and the EC, including eight involving obstacles to U.S. agribusiness (Anjaria et al., 1985).

**Associate Professor of Marketing, St. John's University, Jamaica, New York.*

Finally, when demands arise for major structural changes in global commercial rules, GATT organizes formal trade rounds (*Trade*, 1984). These have included Geneva, 1947; Annecy (France), 1949; Torquay (UK), 1951; Geneva, 1956; Geneva, 1960-61 ("Dillon Round"); Geneva, 1964-67 ("Kennedy Round"); and Geneva, 1973-79 ("Tokyo Round").

The Tokyo Round was the first to move significantly beyond multilateral negotiation of industrial tariff cuts and to enact rules limiting such distorting non-tariff barriers (NTBs) as government procurement, export subsidies, product standards, and customs valuation methods. Despite U.S. determination to liberalize agricultural trade during these negotiations, the results were distinctly modest: establishment of consultative arrangements for meat and dairy products; some agricultural product tariff cuts; and promises by major suppliers to limit export subsidies on foodstuffs, fish, and forestry items.

U.S. Pressures to Move Beyond Tokyo Round Results

Movement toward an eighth formal round of talks in 1986 traces primarily to steady international lobbying by Washington. The goal was to find a multilateral (i.e., non-protectionist) answer to ever worsening trade and current account deficits in 1980-85 (see Table 1). That deterioration appears as a loss of global market share for U.S. agricultural products, manufactured goods, and services, with the Olmer report of mid-1985 just one survey highlighting this overall discouraging performance.

To its credit, Washington adopted a successful tack following the fiasco at the 1982 GATT ministerial meeting (Holden, 1983). On that occasion, a high-powered U.S. delegation with an over-ambitious agenda discovered that unilateral threats and ad hoc talks could not correct market distortions or open up new sectors. In fact, just before that meeting, the EC pointedly reiterated its refusal to allow any discussion of the Common Agricultural Policy (CAP) and its subsidies and export refunds, much less to agree to major new negotiations on agricultural trade so soon after the Tokyo Round. Instead, the EC counseled patience, discipline, and a spirit of cooperation.

In the subsequent search by Washington for allies, Japan was brought aboard in 1983 as a champion of multilateral trade negotiations. By 1984, several other large commercial trading nations were conceding that potential benefits of a new round could make all more efficient and broaden global economic recovery. The culmination of this painstaking phase came at the May 1985 Bonn "economic summit" when the seven largest industrial countries officially endorsed a new round to be conducted under the aegis of GATT.

The process toward formal negotiations would require additional selling, primarily to the LDCs, who command a majority in GATT. Reluctance and/or apathy within that heterogeneous grouping forced Washington to demand a special GATT session in early October 1985. There, and during the regular annual meeting in November, members officially agreed to establish a "Preparatory Committee" to move the process ahead (IMF, 1986). Initial 1986 sessions of this committee demonstrate that details about final format, negotiation procedures, sector participation, and timetables for conclusion will probably only be settled at the moment when negotiations are launched officially at Punta del Este (Uruguay).

Overall, the multi-year prodding and successful herding of nations toward this formal opening on September 15, 1986, and the subsequent move back to Geneva would normally be interpreted as a drive for maximum constructive concurrence. However, not all countries are participants in the negotiation process. And among eligible

Table 1
EXTERNAL ACCOUNTS OF THE U.S.*
($ Billions)
(Credits +, Debits -)

Merchandise	1980	1981	1982	1983	1984	1985
Trade Balance	$- 25.5	$- 28.0	$- 36.4	$- 67.2	$-114.1	$-124.3
Exports	224.3	237.1	211.2	201.7	219.9	214.0
Agricultural Items	41.2	45.5	36.6	36.1	37.8	29.0(e)
Imports	-249.8	-265.1	-247.6	-268.9	-334.0	-338.3
Agricultural Items	- 17.4	- 16.8	- 15.3	- 16.5	- 19.3	- 20.0(e)
Investment Income (Net)	30.4	34.1	29.5	25.4	19.1	24.7
Receipts	72.5	86.4	84.8	78.0	87.6	90.5
Payments	- 42.1	- 52.3	- 55.3	- 52.6	- 68.5	- 65.8
Net Military Transactions	- 2.2	- 1.2	- 0.3	- 0.2	- 1.8	- 2.0
Net Travel/Transportation	- 1.0	0.1	- 1.0	- 4.7	- 9.0	- 11.7
Other Services (Net)	7.3	8.1	8.3	9.6	9.8	10.5
Balance on Goods and Services	9.0	13.2	0.1	- 37.1	- 95.9	-102.9
Remittances and Other Transfers (Net)	- 7.1	- 6.9	- 8.1	- 8.9	- 11.4	- 14.8
Balance on Current Account	1.9	6.3	8.0	- 46.0	-107.3	-117.7

*All numbers on a balance-of-payments basis except agricultural exports and imports.
Source: Council of Economic Advisers.

MID-SOUTH ECONOMY

BUREAU OF BUSINESS & ECONOMIC RESEARCH THE FOGELMAN COLLEGE OF BUSINESS AND ECONOMICS MEMPHIS STATE UNIVERSITY

STATISTICAL SUPPLEMENT

THE MID-SOUTH ECONOMY

For the Mid-South and U.S. economies, the consensus forecast suggests a moderate upswing for the second half of 1986; but current measures of economic activity show some sluggishness, creating an atmosphere of confusion concerning the course of future economic activity. The nation's real Gross National Product rose a solid 2.9 percent over fourth quarter 1985 but was revised downward after an earlier report of 3.7 percent growth. Inflation, up only 0.2 percent in first quarter 1986 over fourth quarter 1985, continues to be subdued because of lower oil prices. However, the recent extraordinarily rapid growth in the nation's money supply has generated some fears that inflation will begin to slowly reappear. The leading index of economic indicators jumped 1.4 percent during first quarter 1986, with constant dollar retail sales and personal income increasing 1.2 and 1.0 percent, respectively. On the other hand, industrial production has been leveling off, and constant dollar spending on new plant and equipment is 1.8 percent below year-ago levels. Also, real corporate profits declined 5.9 percent during the first quarter. Positive signs on the industrial front, however, point to moderate improvement, with new orders of durable goods up a seasonally adjusted 1.0 percent from last May and productivity up slightly in the first quarter after a decline during fourth quarter 1985.

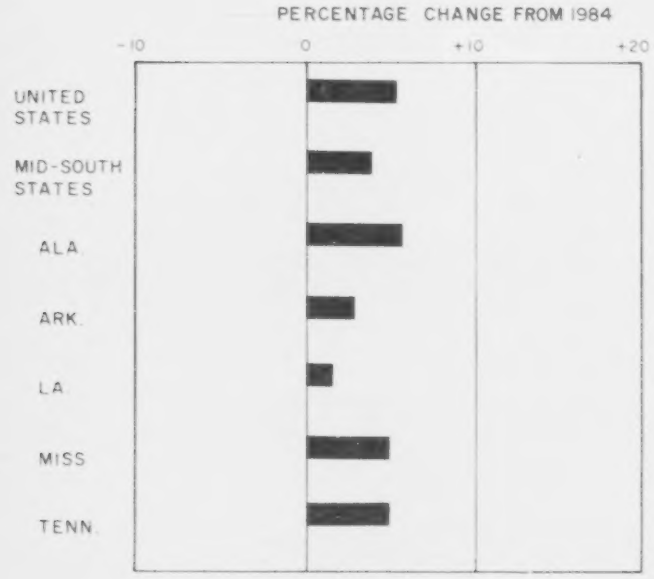
The President's mid-year economic assessment is due in late July, and the prospects for the federal deficit may have a dampening effect on the economy. For the first seven months of fiscal 1986, the deficit totaled $126.4 billion, 6.6 percent higher than the comparable 1985 period. Prospects for the nation's international trade deficit have improved recently with a lowering of the U.S. dollar, but trade figures are generally expected to improve very slowly. Farm prices rebounded sharply in May but remain 4.6 percent lower than those last May. Recovery in the agricultural sector is also expected to be difficult and slow. However, the mid-year assessment is expected to be upbeat, especially considering the recent forecast by a panel of 50 Blue Chip economists which pointed to a substantial increase in economic activity for the second half of 1986.

For the Mid-South states, total employment is 2.4 percent higher than a year ago and sales tax collections remain robust, indicating solid gains in retail sales. A recent report by the Bureau of Economic Analysis indicates that, in terms of percentage growth in per capita income between 1982 and 1985, Alabama, Arkansas, and Tennessee were on par with the national gain, with Mississippi and Louisiana well below that average. A rapid rise in the Mid-South civilian labor force, coupled with a 9.6 percent increase in the number of persons unemployed, kept the aggregate Mid-South unemployment rate near double-digits at 9.8 percent for April 1986. The comparable 1985 rate was 9.2 percent. Prospects for improvements in the Mid-South, overall, will be heavily dependent on its base industries, primarily oil and gas extraction, mining, primary metals, and agriculture.

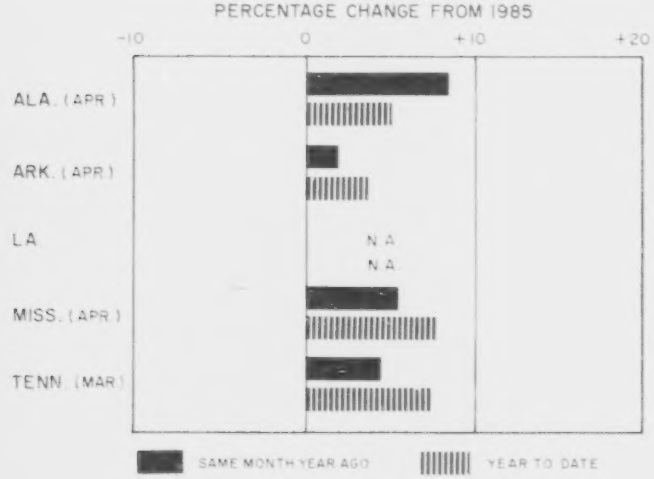
LABOR

The civilian labor force grew rapidly in Alabama, Mississippi, and Tennessee, with Arkansas and Louisiana registering little change. Tennessee and Arkansas were the only Mid-South states to register a decline in their respective unemployment rates from year-ago levels. Louisiana and Mississippi continue to remain at double-digit rates of unemployment. Total non-agricultural employment in the Mid-South increased 1.8 percent from last April, or approximately 114,000 workers. Manufacturing employment declined slightly, with jobs in the non-manufacturing sector climbing 2.3 percent. On the manufacturing side, steel production in Alabama, oil and gas extraction in Louisiana, and the primary metals industries of Tennessee and Arkansas registered substantial declines from year-ago levels. Mississippi, as well as Tennessee and Louisiana, experienced losses in their electrical and electronic machinery industries. Food and kindred products manufacturing was the best performer across the Mid-South, up 7,500 jobs from last April. Non-manufacturing gains continue to be concentrated in the trade and services sectors, with finance and government employment, in general, registering solid gains. Transportation, services, and government employment remain weak in Louisiana,

PERSONAL INCOME - IV QTR. 1985

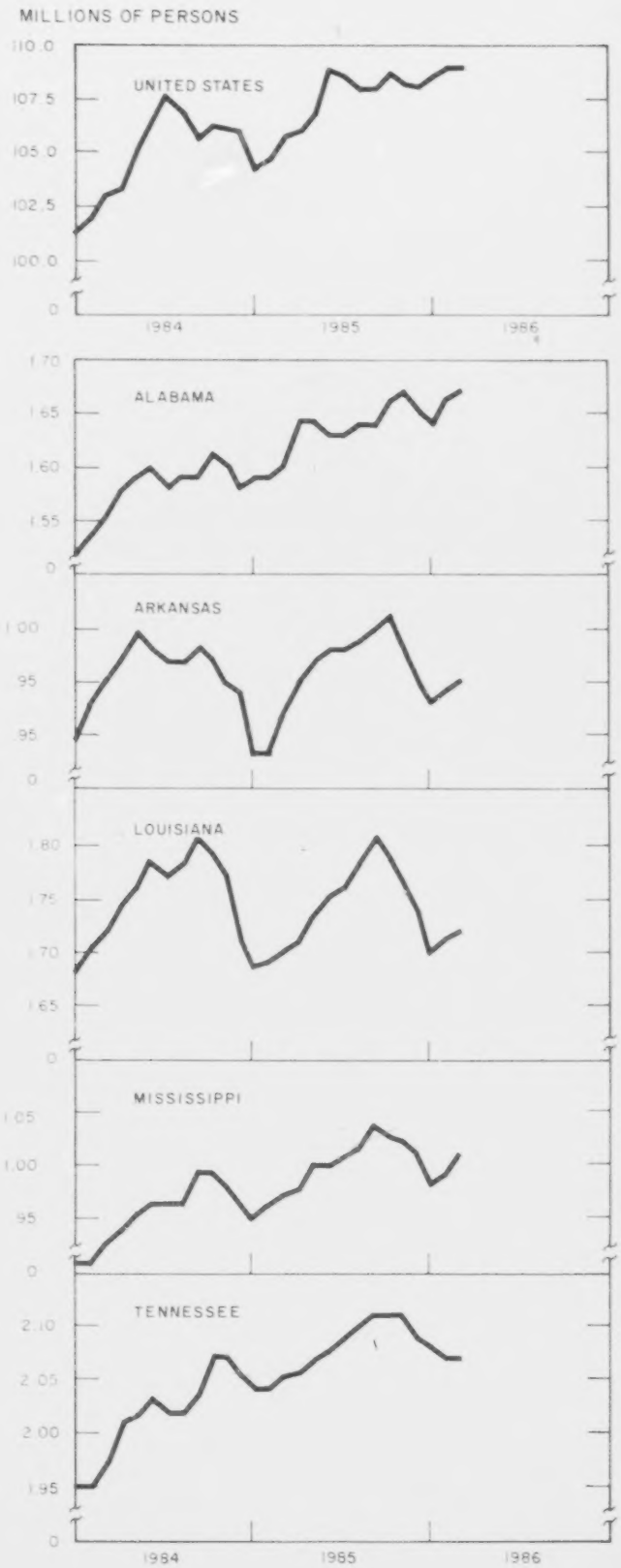


SALES TAX COLLECTIONS 1986



SOURCES: BUREAU OF ECONOMIC ANALYSIS
STATE DEPARTMENTS OF EMPLOYMENT SECURITY AND REVENUE.

TOTAL EMPLOYMENT



LABOR APRIL 1986	United States	Mid-South States				
		Alabama	Arkansas	Louisiana	Mississippi	Tennessee
Civilian Labor Force	116,317,000	1,865,300	1,045,000	1,981,100	1,145,200	2,265,800
Percent Change Year Ago	+1.7	+ 3.9	+0.1	- 0.1	+ 3.1	+2.1
Unemployed	8,115,000	168,700	85,900	262,000	124,400	177,200
Percent Change Year Ago	-0.4	+10.3	-7.3	+15.1	+10.4	+0.2
Unemployment Rate						
1986	7.0	9.0	8.2	13.2	10.9	7.8
1985	7.1	8.5	8.9	11.5	10.1	8.0
Non-Agricultural Wage & Salary Employees	100,040,000*	1,443,600	820,700	1,553,100	849,900	1,917,600
Percent Change Year Ago	+3.0	+ 1.4	+3.1	- 2.8	+ 1.9	+3.7
Manufacturing Employment	19,362,000*	355,800	213,300	168,600	221,100	486,400
Percent Change Year Ago	-0.5	- 0.8	+2.8	- 5.8	+ 0.6	-1.0
Non-Manufacturing Employment	80,678,000*	1,087,800	607,400	1,384,500	628,800	1,431,200
Percent Change Year Ago	+3.9	+ 2.2	+3.3	- 2.4	+ 2.3	+5.4
Average Weekly Earnings of Production Workers in Manufacturing	$392.85	$354.90	$308.37	$429.62	$299.09	$346.04
Percent Change Year Ago	+3.3	+ 2.9	+4.3	- 1.0	+ 4.7	+3.5
Average Weekly Hours of Production Workers in Manufacturing	40.5	40.7	40.1	40.8	40.2	41.0
Percent Change Year Ago	+1.0	- 0.1	+1.0	- 1.4	+ 1.0	+0.2
Average Hourly Earnings of Production Workers in Manufacturing	$ 9.70	$ 8.72	$ 7.69	$ 10.53	$ 7.44	$ 8.44
Percent Change Year Ago	+2.3	+ 3.2	+3.2	- 0.5	+3.6	+ 3.3

*Seasonally adjusted.

Source: Departments of Employment Security and Survey of Current Business.

with Mississippi and Arkansas experiencing declines in public utility-related employment. Major non-manufacturing losses for Tennessee were concentrated in the hotel industry.

CONSTRUCTION

Even with the prospects of an improving economy in the second half of 1986, the demand for real estate products may be softening. Although construction activity is currently at a relatively high level, a leveling off in building permits indicates that the expansion of the last two years is slowing. Overbuilding is pronounced in the office building and hotel sectors, with industrial and apartment building in relative supply and demand balance, except in the South. Housing starts were strong during first quarter 1986, up 12.1 percent from fourth quarter

CONSTRUCTION[1] FEBRUARY 1986	United States	Mid-South States				
		Alabama	Arkansas	Louisiana	Mississippi	Tennessee
Total Building						
Percent Change Year Ago	+10.9	+ 2.5	N.A.	- 8.3	+ 3.8	+54.6
Residential Building						
Percent Change Year Ago	+14.1	+27.2	N.A.	-23.6	- 8.9	+40.2
Non-Residential Building[2]						
Percent Change Year Ago	+ 7.2	-12.6	N.A.	+ 4.0	+49.4	+49.4
Total Dwelling Unit						
Percent Change Year Ago	+ 5.1	+17.8	N.A.	-34.4	-23.2	+16.1

[1]Twelve-month cumulative rate.

[2]Non-residential data exclude the cost of construction for publicly-owned buildings.

Source: The Federal Reserve Bank of Atlanta from data supplied by the Bureau of Census.

1985; but home sales have been lackluster, especially during April. In addition, mortgage interest rates are stabilizing, with the Federal Home Loan Bank 30-year rate at 10.37 percent at the end of May.

For the twelve months ending February 1986 compared to the similar 1985 period, Tennessee was the only Mid-South state to register a positive gain in all construction categories, substantially outpacing the national gain. Alabama experienced a decline in the dollar value of non-residential permits, primarily in industrial buildings and hospitals, while Mississippi's losses were concentrated in the residential sector. Louisiana experienced a slight gain in the dollar value of non-residential activity, but a 23.6 percent decline in residential building offset the gain. The decline in residential activity in Louisiana and Mississippi caused the number of dwelling unit permits across the Mid-South to fall 3.7 percent to an annual rate of 84,500 units.

Construction employment across the Mid-South declined 3.0 percent from year-ago levels, primarily due to a downturn in Louisiana and virtually no growth in Alabama and Mississippi. Arkansas and Tennessee were the major gainers, adding 2,300 workers from last April, an overall gain of 2.0 percent. Nationally, construction employment grew 6.7 percent.

FINANCE

Total commercial bank deposits across the Mid-South were 3.2 percent higher than those last March, underperforming the national gain of 5.5 percent. Demand and time deposits registered slight declines, while savings deposits grew 12.0 percent, outpacing the national gain of 9.7 percent. Commercial and industrial loans at commercial banks across the nation rose 1.5 percent during first quarter 1986 from fourth quarter 1985 and were 4.7 percent higher in April 1986 compared to a year ago. Interest rates remain well below last April's levels, with three-month Treasury bills 144 basis points lower and long-term Treasury bills 118 basis points lower. The prime rate remained at 8.5 percent, while Moody's AAA corporate bond rate slipped below 9.0 percent in April. Currently, the Federal Reserve Board is split on interest rate policy, causing some confusion about its future course. The dilemma for the Fed is whether to lower interest rates, especially if the economy weakens, or maintain interest rates at current levels to help keep inflation in check. The major unknown that will impact the Fed's decision will be the future course of the value of the U.S. dollar which, to a large extent, is out of the control of Federal Reserve policy choices.

Finally, the much-hearalded Tax Freedom Day for 1986 was May 1st, the same as in 1980. The comparable 1970 date was April 28th. And, for the first five months of 1986, world stock markets were substantially higher, with the U.S., British, and Japanese markets up 17.0 percent, 14.7 percent, and 24.2 percent, respectively. Canada registered a moderate gain of 5.5 percent, while the German stock market has remained virtually unchanged since the beginning of the year.

FINANCE MARCH 1986	United States	Mid-South States	Alabama	Arkansas	Louisiana	Mississippi	Tennessee
Member Banks as of 3/5/86 Percent Change from Comparable Date 1985							
Total Deposits	+5.5	+ 3.2	+2.0	N.A.	+ 3.8	+3.8	+5.4
Demand Deposits	+2.7	- 1.6	+0.4	N.A.	- 6.0	+0.4	+1.0
Time Deposits	+2.1	- 0.2	-2.2	N.A.	- 2.3	+2.0	+2.5
Savings Deposits	+9.7	+12.0	+5.9	N.A.	+24.9	+6.9	+3.4

Source: The Federal Reserve Bank of St. Louis and the Federal Reserve Bank of Atlanta.

SAVINGS AND LOAN ACTIVITY	Alabama	Arkansas	Louisiana	Mississippi	Tennessee[1]
Mortgage Loans Made (millions) Percent Change Year Ago Percent Change Year-to-Date	CHANGE IN DATA REPORTING FORMAT. NO COMPARABLE DATA AVAILABLE FOR THIS REPORT.				

[1]Figures are for total loans made.

Source: Federal Home Loan Banks of Little Rock, Cincinnati, and Atlanta.

HOUSING (SHELBY COUNTY)

During the first quarter of 1986, starts and sales of new single-family homes increased from their first quarter 1985 level.

Total residential permits issued increased 9.1 percent, from 2,144 during first quarter 1985 to 2,340 during first quarter 1986. This increase reflects a 5.5 percent drop in single-family permits; a 100.0 percent drop in duplex permits; and a 20.1 percent increase in apartment, condominium, and townhouse permits.

Total starts were up 9.3 percent from their first quarter 1985 level. New single-family starts increased 16.3 percent; duplex starts also posted a first quarter increase. Apartment starts, however, were down 9.2 percent.

Sales of new single-family homes were up 39.6 percent in first quarter 1986 over the same period in 1985, but condominiums registered an 86.2 percent decline, from 261 sales closed in first quarter 1985 to only 36 sales closed in first quarter 1986.

The average sales price of a new home was $95,994 for the first three months of 1986. This was up 5.6 percent from the 1985 first quarter level of $90,921. The sale price of condominiums also increased 26.1 percent during this period to a mean price of $63,282.

The number of real estate transfers increased 6.6 percent when compared to first quarter 1985, but the dollar amount of the transfers was down 7.2 percent in first quarter 1986. Mortgage foreclosures were up 31.2 percent, from 317 for January-March 1985 to 416 for January-March 1986.

Housing permits for the incorporated portions of Shelby County (excluding Memphis and Germantown) totaled 189 for first quarter 1986. All the permits were for single-family dwelling units. Collierville had 59.0 percent of all permits issued. Starts for Shelby County totaled 141—all for single-family homes. The largest number of first quarter starts for Shelby County was in Bartlett.

The inventory of both completed and uncompleted homes in Shelby County is shown in Table 3. Uncompleted

Table 1

SHELBY COUNTY HOUSING INDICATORS, FIRST QUARTER, 1985-1986

Items	First Quarter 1986	First Quarter 1985	Year-to-Date 1986	Year-to-Date 1985	Percent Change Year-to-Date 1986 From Year-to-Date 1985
NEW RESIDENTIAL UNITS					
Total Permits Issued[1]	2,340	2,144	2,340	2,144	+ 9.1
Single-Family	859	909	859	909	- 5.5
Duplex	0	2	0	2	- 100.0
Apartments[2]	1,481	1,233	1,481	1,233	+ 20.1
Total Starts[1]	901	824	901	824	+ 9.3
Single-Family	679	584	679	584	+ 16.3
Duplex	4	0	4	0	+ 400.0
Apartments[2]	218	240	218	240	- 9.2
Sales Closed					
Single-Family (New)	670	480	670	480	+ 39.6
Condominium	36	261	36	261	- 86.2
Average Sales Price					
Single-Family (New)	$95,994	$90,921	$95,994	$90,921	+ 5.6
Condominium	63,282	50,183	63,282	50,183	+ 26.1
REAL ESTATE TRANSFERS					
Number	4,587	4,304	4,587	4,304	+ 6.6
Amount (000)	$370,430	$399,280	$370,430	$399,280	- 7.2
NUMBER OF MORTGAGE FORECLOSURES	416	317	416	317	+ 31.2

[1]Expressed in number of dwelling units.

[2]Apartments include condominiums and townhouses.

homes in first quarter totaled 2,239 units, while completed homes accounted for 1,126 units.

The average selling price of all units sold in Shelby County in first quarter 1986 increased 7.6 percent over the first quarter 1985 average price. Home sales in Shelby County were up 13.4 percent to $235.7 million in first quarter 1986 with 3,599 units sold.

Table 2

RESIDENTIAL BUILDING PERMITS AND STARTS, INCORPORATED AREAS (EXCLUDING MEMPHIS AND GERMANTOWN)[1] IN SHELBY COUNTY, FIRST QUARTER, 1986

Area	Permits			Starts		
	Single-Family	Duplex[2]	Apartments[2]	Single-Family	Duplex[2]	Apartments[2]
Bartlett	65	--	--	65	--	--
Arlington	--	--	--	--	--	--
Millington	--	--	--	--	--	--
Collierville	111	--	--	63	--	--
Lakeland	13	--	--	13	--	--
Total	189	--	--	141	--	--

[1]Due to local government consolidation between Memphis and Shelby County, residential permits and starts cannot be separately identified for the municipalities of Memphis and Germantown. The statistical data for these two municipalities are included in the data for unincorporated Shelby County.

[2]Number of dwelling units.

Table 3

INVENTORY OF UNSOLD SINGLE-FAMILY HOUSING UNDER CONSTRUCTION AND NEW HOUSING, SHELBY COUNTY, TENNESSEE, MARCH 31, 1986

Square Feet	Summary of Uncompleted Houses — Days Since First Inspection						Summary of Completed Houses — Days Since Final Inspection					
	<30	30-60	60-90	90-180	>180	Total	<30	30-60	60-90	90-180	>180	Total
Under 1,000	5	6	4	4	49	68	2	5	5	1	79	92
1,000 - 2,000	20	16	8	13	67	124	1	5	--	4	83	93
1,200 - 1,400	23	30	15	18	110	196	7	6	5	8	96	122
1,400 - 1,600	28	22	20	53	119	242	5	12	7	9	121	154
1,600 - 1,800	26	16	10	36	74	162	3	10	2	6	49	70
1,800 - 2,000	20	29	10	34	107	200	9	5	1	9	41	65
2,000 - 2,200	27	25	14	31	106	203	9	10	2	3	48	72
2,200 - 2,400	25	27	9	32	82	175	2	8	1	1	43	55
2,400 - 2,600	39	22	9	28	93	191	7	7	--	11	51	76
2,600 - 2,800	25	10	16	19	73	143	2	2	1	5	27	37
2,800 - 3,000	11	9	11	19	52	102	4	2	1	2	31	40
3,000 - 3,200	11	4	8	14	32	69	1	2	--	4	27	34
3,200 - 3,400	11	4	6	7	37	65	2	6	--	--	24	32
3,400 - 3,600	4	4	2	8	26	44	1	1	1	2	22	27
3,600 - 3,800	3	2	3	5	26	39	3	2	--	2	20	27
3,800 - 4,000	6	2	3	5	24	40	1	2	--	2	15	20
Over 4,000	9	5	2	16	144	176	3	10	1	8	88	110
Total	293	233	150	342	1,221	2,239	62	95	27	77	865	1,126

Source: K. William Chandler, Housing Inventory.

Table 4

SALES OF EXISTING AND NEW SINGLE-FAMILY RESIDENTIAL UNITS AND DUPLEXES, MEMPHIS AND SHELBY COUNTY, TENNESSEE, FIRST QUARTER, 1968-1986, AND ANNUAL SUMMARY, 1968-1985

Year	Total Dollar Volume All Price Ranges (Millions)		Number of Units Sold		Average Sale Prices All Units	
	1st Quarter	Annual	1st Quarter	Annual	1st Quarter	Annual
1968	$ 36.9	$ 187.8	2,280	11,517	$16,184	--
1969	45.7	204.8	2,724	11,851	16,776	$17,281
1970	41.4	201.1	2,374	11,264	17,438	17,853
1971	50.7	273.1	2,664	13,727	19,031	19,895
1972	68.2	N/A	3,267	N/A	20,875	N/A
1973	79.3	396.3	3,413	15,278	23,234	25,939
1974	81.7	395.0	3,048	13,789	26,804	28,646
1975	63.3	401.6	2,167	12,942	29,210	31,031
1976	97.2	493.7	3,106	14,985	31,294	32,946
1977	120.0	537.5	3,541	14,700	33,889	36,565
1978	132.6	739.4	3,614	18,359	36,691	40,274
1979	153.9	819.3	3,749	18,371	41,051	44,597
1980	143.2	739.7	3,125	15,248	45,824	48,511
1981	136.3	605.1	2,762	11,455	49,457	52,824
1982	107.3	518.7	2,006	9,590	53,507	54,088
1983	145.5	791.1	2,735	13,684	56,856	57,810
1984	183.5	914.8	3,116	15,074	58,875	60,689
1985	207.8	1,091.7	3,415	17,123	60,835	63,488
1986	235.7	--	3,599	--	65,488	--

Source: K. William Chandler, Residential Sales Report.

TENNESSEE ECONOMY

Total non-agricultural employment in Tennessee for April 1986 rose 3.7 percent above year-ago levels. Manufacturing employment declined 1.0 percent, while non-manufacturing climbed 5.4 percent. Net manufacturing losses were evenly divided between durable and non-durable goods, while non-manufacturing gains were primarily concentrated in the retail trade and services sectors. Primary metals and transportation equipment production had a gain of 1,800 jobs above last April, and paper/publishing industries added 1,200 jobs. The major durable goods category registering a decline was the electrical and electronic industries, 2,500 jobs below year-ago levels. Food and kindred products in the non-durables sector registered a gain of 1,200 jobs, while textile products was the biggest loser, down 1,600 jobs. On the non-manufacturing side, health service employment rose 9,400 jobs from last April, with state and local government employment rising 13,700 jobs. Hotel and other lodging service employment across Tennessee fell 2,000 jobs. Meanwhile, even though the total number of persons unemployed remained virtually unchanged from last April and employment grew, the substantial rise in Tennessee's civilian labor force caused only a small decline in the unemployment rate from 8.0 percent last April to 7.8 percent for April 1986. Data on initial claims, often an indicator of future trends in unemployment, are mixed. Initial claims were 14.3 percent below the April 1985 level but experienced a 20.9 percent increase, or 6,468 workers, from the March 1986 total. Therefore, the outlook for a drop in the unemployment rate is cautious and heavily dependent on improvements in the manufacturing sector, especially for fabricated metals, machinery production, textiles, and

chemicals. However, continued strong growth in non-manufacturing employment may be able to keep pace with Tennessee's growing labor force, causing the unemployment rate to move slightly lower over the next few months.

Abnormally dry conditions existed in most areas of Tennessee during April. The most adverse effects of the dry weather were on the state's pastures, hay crops, and tobacco seed beds. Record low temperatures during the last week of April inflicted light to moderate damage to the fruit and vegetable crops. However, field preparation and small grain development were generally ahead of schedule for the month. The April 1986 index of prices received by Tennessee farmers for all farm products declined thirteen index points, or 10.0 percent, from last April. Elsewhere, Tennessee milk production rose 1.0 percent over the April 1985 level, and commercial red meat production during March 1986 totaled 52.8 million pounds, 5.6 percent less than produced last March. The decline was primarily due to a 26.0 percent decrease in the number of cattle slaughtered. Hog production edged up 1.4 percent.

The total dollar value of building permits advanced 54.6 percent in the twelve months ending February 1986 compared to the similar 1985 period. Residential activity was solely concentrated in the single-family area, with multi-family units remaining unchanged at an annual rate of 21,600 units. The dollar value of non-residential building activity climbed 49.4 percent, with all categories registering solid gains. Industrial buildings and schools were the best performers.

According to a recent study by Salomon Brothers, among the 50 largest metropolitan areas Nashville ranked 12th and Memphis ranked 33rd in terms of employment growth between 1981 and 1985. Phoenix, Arizona, ranked first. Major cities with lower employment growth than Memphis were Denver, Milwaukee, Newark, San Jose, Oklahoma City, and New Orleans. In terms of building permit activity, Memphis ranked 1st in housing activity and 13th in non-residential activity. Nashville was a close 3rd to Memphis in housing activity but ranked 6th nationally in non-residential building activity.

Finally, 1985 population estimates for Tennessee counties indicate that the major population growth areas, percentage-wise, are the counties surrounding the Nashville area. Since 1980, Williamson, Rutherford, and Wilson counties experienced the most rapid growth, up 18.9 percent, 16.9 percent, and 11.3 percent, respectively. The only other county to register double-digit growth was Sevier County adjacent to Knox County in East Tennessee. The urban counties of Davidson and Shelby grew 2.8 percent and 2.9 percent, respectively, while Hamilton County's population declined 1.1 percent. Knox County experienced a population gain of 3.9 percent, slightly above the overall state gain of 3.7 percent.

signatories, several major trading nations/groups are notable for their less than enthusiastic gait.

Non-Participants in Perspective

Reference to "global" trade negotiations in 1986 is an exaggeration. While GATT membership is open to all UN members, only about three-fifths (90 in 1985) of the members have formally joined. Another 30 states are provisional or de facto participants. While non-members do not have to undertake obligations of multilateralism, they are also excluded from any automatic benefit of trade concessions accruing under MFN provisions.

Three categories of non-participants are significant: a few economically-developed nations in Eastern Europe; a number of large LDCs; and a multitude of smaller LDCs.

The Soviet Union and East Germany head the list of industrially-advanced non-members of GATT, although Czechoslovakia, Hungary, Poland, and Romania are members. While these non-signatories contribute only an estimated 3.0 percent of world merchandise trade, their absence causes an inability to discuss "global" diminishment of one onerous NTB: state intervention in trade and procurement of all types of products, including agriculture. Interestingly, in March 1986 Moscow approached GATT for "observer" status, explicitly acknowledging the importance of the forthcoming round for international commerce.

More serious for U.S. marketing executives is the fact that as many as six (of nine) LDCs among the largest U.S. merchandise export markets may be ineligible for formal representation at the table. Mexico, our largest LDC export target, for example, had traditionally eschewed acceptance of GATT MFN obligations, although the de la Madrid Government announced in November 1985 that the nation would apply for membership. Three possible East Asian absentees also raise concerns for American exporters of agricultural produce, manufactured merchandise, and services: Taiwan; Hong Kong (which may become the 91st member after a UK-China agreement); and China (which is preparing for resumption of membership). Two large members of the oil-exporting cartel (OPEC) are also non-signatories: Saudi Arabia and Venezuela. Thus, among those nine LDCs absorbing over $2.5 billion in 1985, only South Korea, Singapore, and Brazil were unambiguously eligible by April 1986 to be participants in September 1986.

Smaller non-participants primarily include the island nations of the Pacific and Caribbean, several republics of Latin America, and some of the poorest areas within Africa. While the trade volume of this varied group is small in absolute terms, many parties have a relatively high dependence upon overseas markets.

Overall, GATT's 90 contracting parties and de facto participants contribute more than four-fifths of world trade and a larger share of manufactured goods. However, an absence of universality cannot be ignored by those seeking to push beyond Tokyo Round results by opening foreign markets to innovation from U.S. agricultural, industrial, and service suppliers.

Intransigence Among the Eligible

To their possible credit, some GATT signatories have adopted an intransigent attitude during 1985-86 discussions. Ideally, governments may wish to assure that all parties reach the bargaining table with the same realism. Others, however, seem reticent on a narrower basis, an inability to see positive benefits of participation. In this milieu of mixed motives are three groups: major industrial nations, important LDCs, and groups of nations sharing a common complaint.

France probably represented a wider constituency than appreciated in attempting to cool trade talk fever at the 1985 Bonn summit, repeating the tactics during GATT meetings in the fall. Most recently, the appointment of M. Guillaume as Minister of Agriculture by the new Chirac Government probably signals continued toughness regarding significant modification of CAP's import restraints or export distortions.

Little progress is probable unless major industrial participants enter GATT discussions with roughly similar views about goals for enumerated sectors. Tokyo Round talks demonstrated that multi-year negotiations are political endurance efforts conducted by teams of technicians. The 1982 GATT ministerial summit and recent U.S.-Japanese talks reaffirmed that little flexibility exists, even among summit-level delegates of countries with substantial external account surpluses and despite threats by Washington that foreign restrictions cause record trade deficits and mean inevitable U.S. protectionism.

Several major LDCs, led by Brazil and India during 1985-86, pose another potential go-slow by challenging GATT's authority to introduce new sectors in the negotiations. With all signatories conceding that services are outside GATT's official purview, strong U.S. efforts to put such transactions squarely on the formal agenda have prompted some strong objections, including those at the November 1985 GATT meeting and during subsequent Preparatory Committee sessions.

During the 1982-86 era of debt reschedulings, it is understandable that most LDCs concentrate upon boosting merchandise exports to offset large financial obligations rather than opening their markets to service transactions. However, other LDCs, including some East Asian exporters, see benefits for all in accommodating Washington's hopes for multilateral trade concessions and so consider a "dual track" compromise; that is, initiate formal bargaining in this controversial sector but without explicit linkage to concessions expected by LDCs of the U.S., EC, and Japan in farm and industrial products talks.

A third group, LDCs exporting labor-intensive manufactured items, is also trying to slow any hasty move toward the negotiating table. A notable example is textile exporters seeking liberalization by industrial countries within a new Multi-Fiber Arrangement (MFA) before a mid-1986 deadline. This is one of many longstanding "voluntary" and "orderly marketing" restraints hammered under GATT rules during the last decade.

As in the case of more diversified LDCs, textile exporters fear the Preparatory Committee process will be tilted toward opening LDCs for services and high-technology goods without the U.S. and other developed nations initially conceding a need to accept equal comparative advantage. The Geneva start of MFA negotiations in April 1986 thus attracted considerable attention worldwide, a case study of whether principles and practices of multilateralism can be reconciled into guidelines for the larger global talks of mid-September.

Overall, while U.S. pressure has brought most signatories toward the GATT table, concessions, too, are being expected of Washington in the period ahead. So far, it is not clear what might persuade Brussels to abandon severe agricultural distortions. But it is clear that virtually all LDCs expect the major industrial nations to offer to remove many existing MFN distortions and to pledge a standstill in future restraints. Realistically, it is impossible to separate the linkage in Geneva that will bind any progress in agricultural liberalization abroad with multilateral bargaining in manufacturing or service sectors (OECD, 1985).

Agribusiness Issues in Focus

GATT's purview has traditionally been one of assuring an international environment to reduce tariffs on industrialized products as well as on a few farm products. More recently, members have sought to lessen NTBs upon industrial items and to be concerned about such other distortions as counterfeiting and theft of industrial property.

Since manufactured items loom large in national trade regimes, governments can calculate how welfare could be improved under comparative advantage principles. In trading off existing restrictions against entry of competitively-priced foreign imports, countries can gain more equitable entry abroad. Seven rounds of multilateral talks confirm that GATT parties accept this in theory and practice.

Nonetheless, global trade in manufactures still remains subject to important restraints, as documented by the U.S. Trade Representative (1985). And while such measures as regional preferences, orderly marketing agreements, voluntary arrangements, and various "safeguard" actions are nominally permitted under GATT rules, as are common external tariffs within a customs union (Lortie, 1975), there is resentment among suppliers excluded from market access. Such practices seemingly must be confronted if this newest GATT round is to be productive.

Meanwhile, the U.S. and many other commodity exporters are seeking to widen forthcoming discussions to include farm products. Agricultural trade has been touched in earlier trade rounds. However, serious deterioration in U.S. gross and net farm exports during the 1980s (U.S. Department of Agriculture, 1985; Drabenstott & Norris, 1986) and severe international tensions posed by various domestic subsidies, import restraints, and export subsidies (OECD, 1986; Zietz & Valdés, 1986) have forged a strong coalition determined to assure that full-scale attention will be given to agricultural distortions in this eighth round of global negotiations.

The following three interrelated issues will necessarily be part of any search for tradeoffs within the overall bargaining process.

The European Community and Its Common Agricultural Policy

The CAP is a long-term concern of Washington (Commission on International Trade and Investment Policy, 1971) and one criticized increasingly by producers around the world. EC expansion to 12 members on January 1, 1986, is being followed by important and highly contentious restraints (via levies on corn and sorghum imports) by Spain and (via quotas on soybeans and reservations on grain needs) by Portugal. Significantly, U.S. threats of retaliation for this violation of GATT are not changing the Community's basic commitment to its longstanding special treatment for agriculture via a costly CAP policy (Commission of EC, 1985, 1986):

1. Agriculture is considered a sector of strategic importance, requiring a policy to assure that a high proportion of food needs comes from domestic resources.
2. Agriculture is a sector with special conditions, requiring a policy to regulate prices and marketing to give stability to producer incomes and consumer well-being.
3. Agriculture is a sector with significant environmental effects, requiring a policy to assure that rural depopulation and desertion are avoided.
4. Agriculture is a sector that is a way of life, requiring a policy that promotes structural changes and prosperity for those earning a livelihood there.

Article 39 of the 1957 Treaty of Rome explicitly defined the objectives for a Europe-wide policy as increasing productivity, guaranteeing food supplies, providing food at reasonable prices, stabilizing markets, and insuring a fair standard of living for EC farmers. Starting in 1962, the means have included market organizations and mechanisms, now covering about 95.0 percent of EC output. These have been so adapted that over 21 billion ecus (approximately $20.0 billion at April 1986 exchange rates)—about two-thirds of preliminary 1986 Community fiscal expenditures—go for farm price supports, or about three times the outlay in 1977. This burden is causing EC taxpayers and several governments to question an essentially open-ended package of four major supports even without external pressures to rely more upon international market forces.

First, some 70.0 percent of EC rural production is covered under a system of support prices and official intervention (if market prices sag to a minimum price). For such items as soft wheat, barley, rye, corn, rice, sugar, dairy products, beef, lamb, pork, table wine, and some fruits and vegetables, intervention agencies buy up the amounts offered and stock them, reselling when domestic or international markets can absorb output. For producers enjoying a less than automatic intervention umbrella, there are such flexible measures as storage and distillation

aids. In all cases, the EC protects against imports and maintains a competitive export posture.

A second group of products, about 20.0 percent of the total, benefits primarily through external protection outlays. Support is not deemed necessary within the internal market for such items as other cereals, other wines, other fruits/vegetables, and eggs and poultry. Protection from Brussels comes via levies for the commodity or via customs duties, or both, with measures to deal with special circumstances.

A relative handful (2.0-3.0 percent) of products (durum wheat, olive oil, oil-seeds, and tobacco) receives direct subsidies designed to keep consumer prices low and to support farm income. The mechanism is a composite of intervention, external protection, and additional support.

Finally flat-rate aids on an area or per-unit-produced basis are extended to less than 1.0 percent of EC farm output. Products covered are cottonseeds, flax/hemp, hops, silkworms, seeds, and dehydrated fodder.

The EC lists four achievements of this expensive policy:

1. The EC has gained an impressive security, with "self-sufficiency" during the last ten years rising from 90.0 percent to 105.0 percent for cereals, 90.0 percent to 101.0 percent for wine, 92.0 percent to 123.0 percent for sugar, 92.0 percent to 102.0 for meats, 104.0 percent to 147.0 percent for butter, and 197.0 percent to 317.0 percent for milk powder.
2. European consumers have been partially shielded from global inflation, with rural goods contributing to bring EC inflation (for the 10) down to 5.0 percent in 1985.
3. EC farm incomes generally kept pace with wages during 1968-79 and have not stagnated markedly during the 1980s, albeit large differentials exist among farm incomes by types of product, size of farm, and regions.
4. The EC has remained a major importer of agricultural produce, particularly tropical items and animal feedstuffs.

A Change in LDC Fortunes

The dramatic self-sufficiency within the EC is being matched by much improved agricultural production in most populous LDCs of Asia and Latin America (United Nations, 1985). A shrinking overseas market for U.S. and other farm exports is thus coming from several sources.

For example, the three largest cereal producers of Asia (China, India, and Indonesia) are recording outputs significantly above mid-1970s levels, when world food problems had appeared endemic and prices skyrocketed. Likewise, annual output in Brazil, Argentina, and Mexico is also appreciably above that of the mid-1970s. In fact, only Egypt, Nigeria, and Iran among significant producers have experienced relative or absolute stagnation during this crucial transition period from global rural deficits to surpluses.

Food production and food output per capita in LDCs are summarized in Table 2, along with data for the major exporters from the temperate regions. Regions with rapid jumps in rural productivity stand out clearly, with adverse consequences for a U.S. agricultural sector that now directs approximately one half of its exports to the LDCs and Eastern Europe (U.S. Department of Commerce, 1985).

World Bank (1985) data show, however, that cereal imports still loom large for many LDCs, precipitating annual scrambles among major suppliers. LDC importers (in order) requiring over 3.5 million tons each in 1983 included China, Mexico, Egypt, Korea, Brazil, Iran, India, Algeria, and Iraq. Not surprisingly, marketing agencies in Europe, North America, and elsewhere are pinpointing direct and indirect subsidies in the direction of seizing

TABLE 2
CHANGES IN FOOD PRODUCTION AND FOOD PRODUCTION PER CAPITA BY REGIONS
(1974-76 = 100)

	1973		1976		1979		1982	
	A	B	A	B	A	B	A	B
A. Market Economies								
1. Developed Nations:	96	97	101	100	110	107	116	110
North America	94	96	105	104	116	112	127	118
Western Europe	97	98	98	98	107	106	113	110
Oceania	98	102	107	105	116	111	100	93
2. LDCs:	92	97	104	102	112	102	122	104
Africa	92	97	102	100	106	94	116	94
Latin America	91	95	105	102	115	104	126	106
Near East	86	91	106	103	112	100	120	98
Far East	95	100	104	101	113	104	125	107
Other	95	100	102	100	114	104	122	103
B. Centrally Planned								
1. Asia	94	98	103	101	117	110	127	114
2. Europe and USSR	101	103	102	102	105	101	104	99

A = Food Production.
B = Per Capita Food Production.
Source: United Nations.

shares in those markets and within the USSR/Eastern Europe.

Export Subsidies in Conflict

During the last ten years, EC agricultural expenditures rose 7.0 percent per year in real terms, while rural sector potential advanced by only 2.0 percent annually. With this inflow bolstering the path of self-sufficiency, there can be no surprise that huge public stocks exist in the mid-1980s for milk products, beef, cereals, and a variety of lesser items. However, the Commission of the EC estimates that the subsidy portion of EC agriculture is only about 20.0 percent.

An annual rise in EC agricultural expenditures over the last decade in part traces to political decisions made when a six-nation EC was a substantial importer of farm products. In the 1980s, when the Community is a substantial net exporter of most staple items, there is still unrestricted maintenance of export refunds, allowing EC farm exporters to enjoy the same price and disposal guarantees as when the products are sold domestically. The price gap between the two markets and the export risk are left entirely to be financed within the EC budget, with inevitable consequences upon taxpayers.

When formal GATT negotiations that would institutionalize the EC's CAP took place in the 1960s, the then smaller Community won international concessions to impose protection on some rural items in order to reach Treaty of Rome goals. The offset was that other agricultural items were bound to little or no protection. But as the EC expanded its range and capacity to grow more items, confronting internal pressure to support/protect these new producers, serious political conflict arose with affected foreign suppliers and generated a need to negotiate multilateral compensation.

EC officials carry this dilemma further, linking the existence of little/no protection in some sectors with an expansion in EC agricultural surpluses elsewhere and so a necessity for export subsidies. That is, as foreign suppliers expand sales of such unprotected items as feedstuffs, there is incentive for EC farmers to use those cheaper inputs and to expand output of livestock, beef, and dairy products. The consequence is higher budget outlays for storage and exporting.

The U.S. has retaliated against this tide with a targeted, though controversial (Sands, 1986), export enhancement program designed to recapture traditional markets in North Africa and the Far East. This two-billion-dollar reaction, extended under provisions of the Food Security Act of 1985, is an unambiguous use of export subsidies (Council of Economic Advisers, 1986). Washington argues that GATT concessions to the EC's CAP never intended that export subsidies of the Community be used to seize a larger share of global markets. Brussels, in turn, points to U.S. official sources showing average annual federal payments (i.e., subsidies) to American farmers of $15.0 billion in recent years.

The U.S. has also pressed to obtain direct bilateral compensation for agricultural sector losses associated with Spanish and Portuguese entry into the Community. Brussels looks to a multilateral settlement of this issue, possibly within the eighth formal GATT round. But Washington threatens retaliation during mid-1986 against a variety of EC agricultural products if an estimated $1.0 billion of potential yearly losses are not quickly offset via trans-Atlantic concessions.

Meanwhile, other food exporters around the world fear an adverse fallout from any escalation of EC and U.S. export subsidies and/or from any bilateral settlement of the EC enlargement issues. Australia, Canada, and others are well aware of the potential for more destabilization in prices and volumes if surpluses of the two North Atlantic rivals are unleashed in a trade war.

Finally, a weaker dollar in 1986 and new U.S. farm legislation carry challenges for burdened export agencies everywhere. For example, virtually automatic compensation is due to EC farmers as the dollar falls against the EC's ecu, even as the lighter dollar provides some relief to U.S. suppliers. Meanwhile, the ninth realignment of EC currencies in April 1986 added to the payments Brussels makes to farmers in countries where depreciation occurred. Affecting all abroad are key provisions of the Food Security Act of 1985, making U.S. farm output more competitive internationally by lowering price supports through decreased loan rates (Owens, 1986).

Conclusion

Agribusiness issues occupy a significant place within the ambitious agenda that Washington proposes for the forthcoming trade round. As parties convene for the September 1986 opening, it appears that this sector will be given equal attention, the first time that has occurred within a GATT round. Nonetheless, diversity of interests among the 90 members assures that the final agenda is controversial and that ultimate agreements by partners within and among various sectors will require multi-year negotiations.

Fortunately, the EC, the U.S., and other major agricultural exporters are aware of the altered global supply and demand conditions of the 1980s. Many can visualize conceivable tradeoffs which could permit more reliance on international market forces, lessen evident distortions, and offer some fiscal relief domestically. However, complex tradeoffs that would, for example, lower the EC's high protection on some products while permitting some changes on unprotected items would have to be judged within the larger pluses and minuses for various participants, including assessment of gains and losses in other sectors.

References

Anjaria, Shailendra J., Naheed Kirmani, and Arne B. Petersen. *Trade Policy Issues and Developments* (Occasional Paper 38). Washington: International Monetary Fund, 1985.

"Annual Report of the Council of Economic Advisers," *Economic Report of the President*. Washington: U.S. Government, 1986.

Commission of the European Communities. *The Agricultural Policy of the European Community*, 3rd edition. Luxembourg: EC, 1983.

Commission of the European Communities. *Europe's Common Agricultural Policy*, 2/86. Luxembourg: EC, 1986.

Commission of the European Communities. "Perspectives for the Common Agricultural Policy." Communication of the Commission to the Council and the Parliament, July 15, 1985.

Commission on International Trade and Investment Policy. *United States International Economic Policy in an Interdependent World: A Report to the President*. Washington: U.S. Government, 1971.

Drabenstott, Mark. "U.S. Agriculture: The Difficult Adjustment Continues." *Economic Review* of the Federal Reserve Bank of Kansas City, 35-49, December 1985.

Drabenstott, Mark and Kim Norris. "Competing in the World Marketplace: The Challenge for American Agriculture." Summary of a symposium held in Kansas City, October 31 and November 1, 1985. *Economic Review* of the Federal Reserve Bank of Kansas City, 3-13, February 1986.

Holden, Alfred C. "Where Do We Go. . . from GATT? *American Import-Export Management*, 8, February 1983.

Hudec, Richard E. *The GATT Legal System and World Trade Diplomacy*. New York: Praeger, 1975.

International Monetary Fund. *Direction of Trade Statistics Yearbook*. Washington: IMF, various issues through 1985.

International Monetary Fund. "Meeting of GATT Contracting Parties Paves Way for New Global Trade Round." *Survey*, 38-39, February 3, 1986.

Jackson, John H. *World Trade and the Law of GATT*. Indianapolis: Bobbs-Merrill, 1969.

Lortie, Pierre. *Economic Integration and the Law of GATT*. New York: Praeger, 1975.

Olmer, Lionel H. (Under-Secretary for International Trade). *U.S. Manufacturing at a Crossroads*. Washington: U.S. Department of Commerce, 1985.

Organization for Economic Cooperation and Development. *Costs and Benefits of Protectionism*. Paris: OECD, 1985.

Organization for Economic Cooperation and Development. *Report on the Outlook for Agricultural Policies and Markets*. Paris: OECD, 1986.

Owens, Raymond E. "The Agricultural Outlook for 1986 . . . Continued Financial Weakness Seen." *Economic Review* of the Federal Reserve Bank of Richmond, 29-34, January/February 1986.

Reagan, Ronald. "A Trade Policy Action Plan." An address in Washington on September 23, 1985, to the President's Export Council and Advisory Committee for Trade Negotiations.

Sands, Donald W. "Marketing American Agriculture: Problems and Opportunities." *Economic Review* of the Federal Reserve Bank of Atlanta, 20-23, January 1986.

Trade: U.S. Policy Since 1945. Washington: Congressional Quarterly, Inc., 1984.

United Nations. *1982 Statistical Yearbook*. New York: UN, 1985.

U.S. Department of Agriculture. *Agricultural Outlook* (Special Reprint on Exports and Trade). Washington: 1985.

U.S. Department of Commerce, Bureau of the Census. *Highlights of U.S. Export and Import Trade* (FT 990). Washington: various monthly issues for 1985.

U.S. Trade Representative. *Annual Report on National Trade Estimates*. Washington: 1985.

World Bank (IBRD). *World Development Report 1985*. Washington: World Bank, 1985.

Zietz Joachim and Alberto Valdés. *The Costs of Protectionism to Developing Countries: An Analysis for Selected Agricultural Products* (World Bank Staff Working Paper, Number 769). Washington: World Bank, 1986.

ADEQUATE DISCLOSURE OF PENSION LIABILITIES: A SURVEY OF EXECUTIVE OPINION

*Terrye A. Todd and Clyde L. Posey**

Economic conditions in the United States and abroad over the last decade have stirred up more than one hornet's nest for the accounting profession. Inflation accounting, foreign currency translations, and accounting for pensions are the three areas that have proved most troublesome. The unresolved questions about accounting for defined benefit pension plans are currently eliciting intense debate. Over the last five years, accountants and businessmen have offered voluminous input concerning possible solutions. As the completion of the Financial Accounting Standards Board's (FASB's) pension project approaches, it is time to sort through this input and seek a workable solution.

While many aspects of pension reporting have been questioned, the fundamental issue remains—whether or not a footnote provides adequate disclosure of pension information. Over the last five years, the FASB has heard numerous arguments concerning footnote disclosure. This input has obviously helped shape the FASB's position. It is the purpose of this article to support the need for balance sheet disclosure of pension liabilities and to assess the potential impact of such disclosure as foreseen by corporate executives.

Review of the FASB's Pension Project

During the late 1970s, many U.S. companies were struggling to survive. Sagging from the impact of a depressed economy and high inflation, these companies also felt the added weight of liberal pension plans. Then, beginning in 1980, FAS No. 36, "Disclosure of Pension Information," required disclosure in footnote form of the present value of accrued pension benefits and the market value of plan assets. For the first time huge unfunded pension liabilities were exposed to the eyes of plan participants, investors, and creditors. For some ailing companies, such as Kaiser Steel, management decisions were significantly influenced by the unfunded pension liability.[1] Aware that the financial statement disclosures regarding pensions had not adequately revealed these serious deficiencies, accountants struggled to come to grips with the realities of pension accounting, reporting, and funding.

A great deal of discussion was generated by the issuance of SFAS No. 36. Donald J. Kirk, chairman of the FASB, and others who worked on the pension project stressed that the intent of SFAS No. 36 was to improve the disclosure requirements of APB Opinion 8. It was intended to be an interim regulation pending the finalization of the comprehensive pension study.[2] Nevertheless, numerous articles arguing the pros and cons of SFAS No. 36 were written, and studies were conducted analyzing the alternate effects on financial statement reporting.[3]

In 1982, the FASB initiated its comprehensive pension review by issuing a Discussion Memorandum (DM), "Employers' Accounting for Pensions and Other Post-employment Benefits." In response to the DM, attention was directed toward the classification of unfunded pension costs as a balance sheet liability. Most of the speakers at the FASB's 1981 public hearings objected to the balance sheet presentation,[4] but the liability issue nevertheless received positive support in several journals (referenced in this article) and from academicians.[5]

Despite initial opposition, the FASB persevered. In 1982, the Board published its preliminary views which required recognition of a pension liability on the balance sheet. Analysis of these requirements, however, produced some alarming results. Due to a suggested change in the measurement rules, the resulting pension liabilities would have been larger than the obligations previously reported in the footnote disclosures.[6] The controversy, therefore, not only continued, but escalated.

For two years the FASB intensely studied the pension issues and the comments elicited by the preliminary views. Their study culminated in the issuance of an Exposure Draft (ED) in March 1985. Obviously, the heated debate had an impact on the FASB; the ED differed in many ways from the earlier preliminary views. In the ED, the FASB continued to require disclosure on the balance sheet for unfunded pension obligations, but based on the ED's measurement rules, most companies will not have such a pension liability.[7]

**The authors are, respectively, Assistant Professor of Accounting, Southern Arkansas University, Magnolia, Arkansas, and Professor of Accounting, Louisiana Tech University, Ruston, Louisiana.*

In principle, at least, the FASB has upheld the theoretical veracity of the balance sheet liability. In another of the Board's major undertakings, it developed the definition for a liability[8] and described the criteria which indicate the need for recognition in the financial statements.[9] To the Board's credit, it did not ignore the conceptual framework's guidance.

What Is Adequate Disclosure?

Financial reporting is one of the components of the conceptual framework project. According to SFAC No. 5, an obligation should be recognized in the financial statements as a liability if it meets the following fundamental recognition criteria:

1. The item meets the definition of an element of financial statements.
2. It has a relevant attribute measurable with sufficient reliability.
3. The information about it is capable of making a difference in user decisions.
4. The information is representationally faithful, verifiable, and neutral.[10]

Pension Obligations Are a Liability

SFAC No. 3, "Elements of Financial Statements of Business Enterprises," defined liabilities as "probable future sacrifices of economic benefits arising from present obligations of a particular entity to transfer assets or provide services to other entities in the future as a result of past transactions or events."[11] Unfunded pension obligations meet this definition.

There are two critical elements of the pension plan: the benefits that will have to be paid and the assets with which to pay those benefits. The difference between these two elements represents either a net obligatory position (if the assets are less than benefits) or a net asset position (if assets are more than benefits).

Measurement of these elements is complex, in part, because benefits owed are derived from three components—past service costs, prior service costs, and normal costs. Past service costs are incurred when the plan is adopted and credit is granted for years of employment prior to the adoption. Prior service costs are incurred when amendments are made to increase pension plan benefits. These two elements have all the characteristics of a liability as described in SFAC No. 3.

First, the sponsor immediately has a probable responsibility to pay the benefits. The exact benefits due to past and prior service are not known, but some amount will be paid and that amount can be reasonably estimated.

Second, the sponsor is obligated to pay those benefits. The funds may be entrusted to the plan's trustee for investment and ultimate payment of benefits, but the sponsor is required to deposit funds into the plan equal to the present value of the benefits attributable to past and prior service. ERISA requires that a minimum of 1/30 of past service costs and 1/15 of prior service costs be deposited each year until the benefits are completely funded.

Third, the service for which the benefits were granted has already taken place. The employees may be required to work additional years in order to have a vested right to the benefits, but the actuarial computation of the past and prior service costs takes into consideration employee turnover and death prior to retirement.

Theoretically, of course, only the vested portion of the total pension benefits are liabilities at any specific point in time, i.e., the balance sheet date. Vested benefits are those pension benefits which employees have a non-forfeitable right to receive. If the pension plan was actually terminated as of the balance sheet date, non-vested benefits would not be pension liabilities; the employees' rights to these benefits would have been forfeited. For any business that is a going concern, however, sound business policy mandates the continuation of good employer-employee relations. The insinuation that the pension benefit plan could be arbitrarily terminated at any point in time, that those employees with non-vested benefits might not receive their benefits, poses a threat to employee confidence and may misrepresent the company's position. For a going concern, in fact, the assumption must be made that the plan will not be arbitrarily terminated and non-vested benefits are liabilities as surely as are vested benefits.

Pension Obligations Can Be Measured

Like many other areas of financial reporting, the measurement of pension obligations requires the use of estimates. This does not, however, imply that such measurement is not reliable.

The inherent use of actuarial estimates, such as retirement age, employee turnover, and mortality rates, as well as the assumed rate of return, negates the absolute accuracy of the computed benefits; but, on the other hand, absolute accuracy is not necessary to make the measurement reliable.

Statement readers are accustomed to seeing estimates in the financial statements and accept them. The use of estimates is not a novelty for accounting. The calculation of depreciation expense is based on estimated useful life and estimated residual value; the presentation of net accounts receivable includes an allowance for estimated uncollectable accounts.

Pension Obligations Are Relevant

To be relevant, information must be timely—it must be available when the decision is being made, not after the fact. Furthermore, relevant information must have predictive value or feedback value—it must enable the reader to assess the probabilities of future cash flows.[12] Such information has the ability to make a difference to the statement reader. Based on these criteria, information about pension obligations is relevant.

Pension Obligations Are Reliable

Reliable information faithfully represents what it claims to represent and is free from error or bias. It must possess verifiability and neutrality. Based on the measurement

guidelines included in the ED, pension obligations meet this criterion.

Under SFAS No. 36, the reliability of pension information presented a serious problem. Verifiability implies consensus among the measurers, and, given the flexibility permitted in actuarial methods and interest rate assumptions, the verifiability of pension obligations was questionable. The Exposure Draft, however, prescribes the actuarial methods to be used in determining the pension obligations. By eliminating arbitrary flexibility in the calculation, the verifiability of the obligation was improved. While there continues to be a great deal of flexibility allowed in the interest rate assumption, expanded footnote disclosure of the rate's impact should further improve verifiability.

Financial statements should not be prepared on a selective basis. All relevant information should be included, not just the information favorable to the firm. Presentation of pension obligations in the financial statement footnotes may imply that no obligation exists and hence impair the neutrality of the information.

Footnote Disclosure Versus Balance Sheet Disclosure

Based on the arguments presented, pension obligations meet all the criteria for recognition. Such obligations should, as the FASB insists, be disclosed on the balance sheet.

The existence of a pension liability is a factor which could make a difference to investors, creditors, employees, and other users of financial statements. Deferral of the liability's recognition under existing accounting standards may result in the conspicuous absence of timely, predictive information for those users. Furthermore, presentation of the disclosure in footnote form may misrepresent the nature of the existing obligation. Footnote disclosure alone may be misleading and cannot be considered adequate disclosure.

Based on the efficient capital market concept, sophisticated users of financial information assimilate all the available financial data, whether it is presented in the financial statement footnotes or on the balance sheet itself. This argument, however, should not be used to excuse inconsistent application of the recognition concepts outlined in SFAC No. 5. Presentation on the balance sheet provides greater emphasis on the obligation for future pension benefits. Furthermore, in order to adequately disclose pension information for a broader spectrum of statement users, balance sheet presentation is preferable.

Survey of Executive Opinion

Regardless of the theoretical arguments concerning pension disclosures, businessmen are the ones who must comply with the FASB's disclosure requirements. The researchers conducted a survey to gain insight into the attitudes and opinions held by businessmen who are affected by the pension disclosure standards. One hundred companies were randomly selected for the survey from *Fortune's* 1981 listing of the 500 largest industrial corporations. Questionnaires were mailed to each company's senior financial officer, and fifty-one responses were received. All the companies responding had defined benefit pension plans. Some companies also had defined contribution plans or other types of deferred compensation agreements, but questions were restricted to the problems associated with accounting for defined benefit plans.

Based on the computation and disclosure requirements of SFAS No. 36, twenty-eight of the respondents (55 percent) reported new unfunded pension obligations in their company's 1981 pension disclosure footnote. Twenty-three respondents (45 percent) reported net pension assets in the footnote. (See note below.) Table 1 provides a breakdown of the unfunded amounts reported by those with net pension obligations. Responses were analyzed in three groups: companies with unfunded pension costs, companies without unfunded pension costs, and all companies combined.

Table 1: Reported unfunded accumulated plan benefits

32.1%	Under $10 million
50.0%	Between $10 million and $100 million
14.3%	Between $100 million and $500 million
3.6%	Over $500 million

The central issue of the pension plan debate concerns the adequacy of the footnote disclosure. The executives were asked their assessment of such disclosure; their responses are presented in Table 2.

Table 2: Do financial statements meeting the existing disclosure requirements adequately inform investors about the assets and obligations associated with a company's pension plan?

	Yes	No
Respondents with unfunded pension costs	60.7%	39.3%
Respondents without unfunded pension costs	52.2%	47.8%
All respondents combined	56.9%	43.1%

Based on the above responses, it appears that those companies reporting unfunded pension costs are more satisfied with existing disclosure requirements. Considering the proposed alternative, balance sheet disclosure, this is not surprising. What is noteworthy is the significant number of businessmen who agreed that existing disclosures are inadequate.

The interest rate assumed for reporting purposes must be disclosed in the financial statement footnotes. Since changes in this rate can directly affect the reported accumulated benefits, the respondents were asked if they explained this relationship. As shown in Table 3, most of the companies which were surveyed did not voluntarily add this explanation.

NOTE: An extensive study which was conducted by the consulting firm of Hewitt Associates found 44 percent of corporate pensions underfunded in 1981.[15] Based on their findings, twenty-two of the respondents (44 percent) were expected to report unfunded pension obligations. This results in a computed X^2 of 2.877. Using alpha = .05, this sample was, therefore, accepted as a valid representation of the population.

Table 3: Does your company voluntarily explain the relationship between the discount rate used and the resulting accumulated plan benefits in the financial statement footnotes?

	Yes	No
Respondents with unfunded pension costs	26.0%	74.0%
Respondents without unfunded pension costs	30.0%	70.0%
All respondents combined	28.0%	72.0%

Although most of the companies omit this explanation, there was a vast difference of opinion noted concerning the advisability of such disclosure. One respondent commented that such an explanation would be "immaterial and not worth the space necessary," but others strongly disagreed, noting that it should be a mandatory disclosure.

Despite the definition of a liability and the requirement by ERISA that companies fund past and prior service costs, businessmen still did not universally perceive this obligation as a liability of the firm—either in theory or practice. Queried whether they considered unfunded pension costs to theoretically be a liability of the firm, 58 percent acknowledged the obligation, but 42 percent did not.

The disclosure of pension liabilities has been criticized because of the possibility that such disclosure would jeopardize the ability of the firm to raise capital. Some of the criticism may have been warranted, as evidenced by the actions of bond-rating agencies after the passage of ERISA.[14] Based on the survey results, however, the expected negative impact may have been exaggerated.

As Table 4 shows, the executives, as a whole, were split between those who anticipate some financing problems and those who do not.

Table 4: Do you think that disclosure of the amount of unfunded pension costs on the balance sheet would jeopardize the ability of a firm to finance future capital requirements?

	Probably	Maybe	Unlikely
Respondents with unfunded costs	25.9%	7.4%	66.7%
Respondents without unfunded costs	47.8%	21.8%	30.4%
All respondents combined	36.0%	14.0%	50.0%

Many respondents commented that the determining factor would be the size of the unfunded liability in relation to the total capitalization. It is interesting to note that two-thirds of the respondents who report unfunded pension costs do *not* believe that disclosure would jeopardize their financial position. The respondents with no unfunded pension costs, however, leaned in the other direction. Over two-thirds of the latter group speculated that balance sheet disclosures could cause problems in securing capital for some companies. As one respondent added, a key point is that analysis of financial statements including unfunded pension costs "will involve substantial adjustment by the financial community." The use of jeopardized credit as an argument against balance sheet disclosure may, indeed, merely be a subterfuge for concealing significant unfunded pension costs.

Another argument against balance sheet disclosure has been based on the fear that pension benefits would cease to be amended if a plan amendment would increase the reported liability. It has been contended that pension plans would, therefore, cease to keep pace with the rising cost of living and plan participants would suffer in the long run. This argument was dismissed by those surveyed. Both respondents with and without unfunded pension costs agreed that their companies would continue to make changes to increase plan benefits. One respondent conjectured that liability disclosure "will create more pressure to continue those improvements."

As Table 5 shows, only 24 percent of the respondents considered it unlikely that plan improvements would continue to be made to the defined benefit plans, and those responses were tempered with the comment that the company might shift to a different contribution approach as an alternative.

Table 5: If an amendment to the pension plan which increases benefits would create a liability on the balance sheet, would your company continue to make such changes?

	Probably	Unlikely	Unknown
Respondents with unfunded costs	74.1%	22.2%	3.7%
Respondents without unfunded costs	65.2%	26.1%	8.7%
All respondents combined	70.0%	24.0%	6.0%

Conclusions

Based on the conceptual definition of a liability in SFAC No. 3 and on the recognition criteria outlined in SFAC No. 5, the excess of the present value of pension benefits over plan assets represents a bona fide liability of the plan sponsor. Failure to disclose the pension liability on the balance sheet impinges on the usefulness of the financial statements. By limiting disclosure to the footnotes, the sponsor may be implying that the obligation to fund the accumulated benefits is subordinate to other enforceable obligations. This is misleading and, therefore, inadequate disclosure.

The arguments that the balance sheet disclosure will jeopardize either the capital-raising ability of the firm or the financial security of plan participants avoid the real issue. Financial statements must disclose all relevant information, otherwise the statements may cease to be useful.

This survey basically confirmed these points. A significant number, over 43 percent, of the executives who responded consider disclosure requirements inadequate. Many businessmen, however, refuse to acknowledge the pension obligation as a liability of the sponsor. This may be due largely to the huge amounts involved and their reluctance to rethink the nature of the pension obligations.

Most of the executives who had unfunded pension costs dismissed the idea that the balance sheet disclosure would jeopardize the ability of their own firm to raise capital. The arguments made to the contrary are primarily speculation by those opposing balance sheet disclosure of the liability.

Worried that disclosure of pension liabilities may cause sponsors to be reluctant to increase benefits in the future, some employee groups may object to the balance sheet disclosure. The executives who were surveyed, however, overwhelmingly agreed that the liability disclosure would

not stop plan improvements, although there may be a shift to more defined contribution plans or other alternate arrangements.

The FASB should be supported for its insistence that pension liabilities be reported on the balance sheet. Such reporting is essential for adequate disclosure of financial information. Opposition to this disclosure is not supported by the findings of this survey. Hopefully, the opinions expressed by those affected by pension disclosure requirements will quiet some of the dissension and encourage support for the FASB's position.

Footnotes

[1]Mary Greenebaum, "The Market Has Spotted Those Pension Problems," *Fortune*, December 1, 1980, p. 146.

[2]Marilyn Much, "Pension Liabilities: Now You See 'Em, Now You Don't!" *Industry Week*, November 16, 1981, p. 77; Donald J. Kirk, "Pension Accounting: A Major Theme of the 1980's," *Journal of Accountancy*, October 1981, p. 98.

[3]Sara A. Lutz, "Pension Plan Disclosures - What They Mean," *Management Accounting*, April 1981, pp. 48-54; Jerome F. Seaman and Harold H. Hensold, Jr., "Pension Plan Obligations: The 'Real' Impact," *Journal of Accountancy*, July 1982, pp. 82-88; and Kirk, pp. 92-98.

[4]Timothy S. Lucas and Betsy Ann Hollowell, "Pension Accounting: The Liability Question," *Journal of Accountancy*, October 1981, p. 57.

[5]Sidney Davidson, Clyde P. Stickney, and Roman L. Weil, *Intermediate Accounting* (Hinsdale, Illinois: The Drysden Press, 1980), p. 19.40; Jay M. Smith, Jr., and K. Fred Skousen, *Intermediate Accounting* (Cincinnati: South-Western Publishing Co., 1981), p. 589.

[6]E. Richard Brownlee, II, and S. David Young, "Pension Accounting: A New Proposal," *The CPA Journal*, July 1985., p. 32.

[7]Ibid., p. 37.

[8]FASB, Statement of Financial Accounting Concepts No. 3, "Elements of Financial Statements of Business Enterprises," Stamford, Conn., 1980, paragraph 29.

[9]FASB, Statements of Financial Accounting Concepts No. 5, "Recognition and Measurement in Financial Statements of Business Enterprises," Stamford, Conn., 1985, paragraph 63.

[10]Ibid.

[11]FASB, Statement of Financial Accounting Concepts No. 3, paragraph 28.

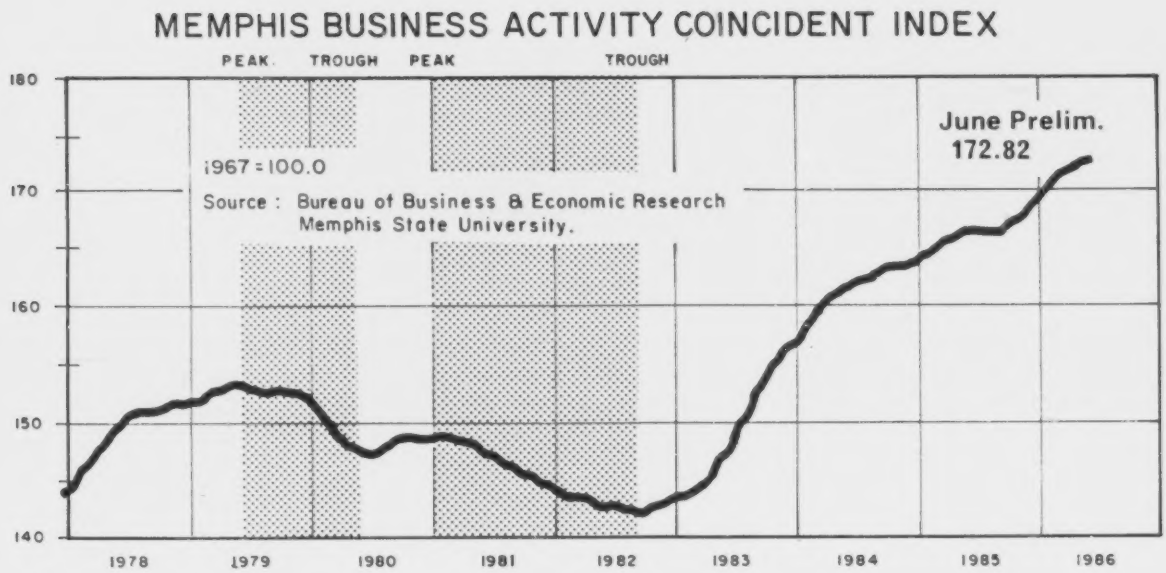
[12]FASB, Statement of Financial Accounting Concepts No. 2, "Qualitative Characteristics of Accounting Information," Stamford, Conn., 1980, paragraphs 46-51.

[13]"Study Finds Most Pension Plans Healthy," *National Underwriter*, July 31, 1982, p. 30.

[14]Much, p. 77.

LOCAL BUSINESS CYCLE ANALYSIS: MEASURING THE MEMPHIS ECONOMY

*Dave Bourne**



Policy makers, business leaders, and consumers have long had an interest in assessing the current state of business conditions. The U.S. Department of Commerce releases a wealth of statistical information monthly which measures various aspects of the national economy. Taken as a whole, this body of data may provide no clear-cut picture to the user. Fortunately, through work done by the National Bureau of Economic Research (NBER), simple methods are available which condense this information into a set of index values. The composite indices of leading, lagging, and coincident indicators are summary measures arrived at by combining the values of important economic variables.

The Bureau of Business and Economic Research (BBER) began work in 1980 on a composite index which would serve as a measure of current economic activity within the four-county Memphis metropolitan area. The purpose of the index was to enable researchers to gain a better understanding of the unique structure and cyclical variations of the local economy.

In September 1980, the Bureau of Business and Economic Research began publishing a monthly newsletter devoted to an analysis of key sectors of the area's economy. The Memphis Business Activity Index of Coincident Indicators was the cornerstone of that publication.

The Bureau then began work on the development of a composite index of leading indicators. The purpose of this index was to provide the user with the capability of forecasting the probable future course of local business activity. At the same time, a lagging index was constructed to serve as a monitor of the patterns indicated by the coincident and leading indices. Publication of a quarterly newsletter featuring the leading and lagging indices began in July 1981.

The methodology utilized in the development of the three Memphis business activity indices was similar to that used by the National Bureau of Economic Research in

**Research Assistant, Bureau of Business and Economic Research, Memphis State University, Memphis, Tennessee.*

constructing the national indicators. The result was a set of local indicators which are interrelated and comparable to their national counterparts.

The purpose of this article is to outline the process used in the construction of the indicator series, focusing on the modifications made to the National Bureau of Economic Research methodology.

Determining a Reference Cycle

The first step in the development of a model of business cycle indicators is the determination of a reference cycle. The reference cycle establishes the turning points at which contractions or expansions in the economy begin. At the national level, these reference dates are determined by movements in the measure of real Gross National Product. However, no reliable estimate of local output exists. The analyst is left with the choice of using the established national reference cycle or developing a measure of the economic cycles specific to the local area. For our purposes, the second option was judged preferable due to the unique structure of the local economy.

Local turning point dates were found through a comprehensive analysis of variables covering a broad spectrum of economic processes. Time series data from forty individual variables, representing local activity in terms of employment, production, trade, and income, were combined into a composite index. The cyclical movements of this index established the turning points of the Memphis economy. Local and national reference dates are listed in Table 1.

Table 1
BUSINESS CYCLE REFERENCE DATES[1]

National		Memphis MSA	
Peak	Trough	Peak	Trough
December 1969	November 1970	November 1969	August 1970
November 1973	March 1975	November 1973	May 1975
January 1980	July 1980	July 1979	July 1980
July 1981	November 1982	January 1981	October 1982

[1]Data for the Memphis MSA began in 1967.

Analysis of the above dates reveals that the economy of the Memphis area tends to reach business cycle peaks prior to the national economy, while the trough dates are approximately the same. This implies that the local economy is somewhat more sensitive to the factors which contribute to a business downturn, and that contractionary periods tend to last longer at the local level.

Scoring Individual Indicators

Once the reference dates are determined, it becomes possible to identify individual variables which move in patterns that tend to lead, lag, or roughly coincide with the reference cycle. The National Bureau of Economic Research has developed an explicit scoring system designed to facilitate the evaluation and classification of economic time series into the timing groups used in business cycle analysis. The system assigns a score according to each variable's economic significance, statistical adequacy, conformity to the reference cycle, timing at business cycle turns, smoothness of movements over time, timeliness of data availability, and the extent to which the data are subject to revision.

The National Bureau of Economic Research designed this scheme in order to choose, from among several hundred individual economic indicators, a relative few for inclusion in the appropriate indices. The objective was to select only those variables which (1) represented major economic processes; (2) closely and consistently followed accepted business cycle patterns; and (3) were promptly available, reasonably accurate, and not subject to major revisions.

National economists can afford to be selective in choosing their index components. A local modeler usually cannot. The relative absence of local time series data is the greatest single obstacle facing the sub-regional business cycle analyst.

The Memphis Indices

It has long been recognized that certain economic variables move in cycles which roughly coincide with the patterns of the overall economy. Some variables tend to move prior to the aggregate cycle, while others lag behind. Most, however, show no consistent pattern over long periods of time. Our task was to identify those variables relating to the Memphis economy which had similar timing patterns, following the guidelines established by the National Bureau of Economic Research. (For a detailed discussion of these procedures, see U.S. Department of Commerce (1984) and Zarnowitz and Boschan (1975).)

Every available local variable with monthly time series data back to at least 1967 was included in the scoring process. (This was the set of forty indicators used to construct the composite index described above.) The data was first adjusted in two ways: (1) seasonality was removed, and (2) long-term trend cycles were established. This was accomplished using the Census Bureau's X-11 seasonal adjustment program. In addition, all dollar amounts were expressed in real terms.

In the course of scoring the variables, more than half were found to be inadequate as cyclical indicators. Most were eliminated because of their inconsistent timing patterns or their failure to conform to the Memphis reference cycle. Of the remaining variables, four were identified as consistently lagging the overall cycle, four as leading, and five as roughly coincident.

The actual construction of the indices was the point at which the Bureau diverged from the National Bureau of Economic Research methodology. In the national system, the index is built by standardizing the percentage changes of the component series over time and then summing these values to arrive at an index value. Each component is weighted according to the score it was assigned in the earlier exercise. The main objective is to prevent the more volatile series from dominating the index.

The scheme used in building the Memphis indices was simpler, but accomplished the same goal. The adjusted values of each component time series were converted to an index based on that series' average value in 1967. These sub-indices were then combined into a composite index, also 1967 based. The weights were assigned in inverse proportion to each component's long-term average monthly percentage change so that the most stable variables received the highest weight and vice versa.

Performance of the Indices

An index of economic indicators is a useful tool only when it moves in a consistent pattern with regard to the reference cycle. Table 2 summarizes the timing of the cyclical turning points for each of the three composite indices that were observed in the Memphis economy from 1967 to the present.

Table 2
PEAK AND TROUGH DATES, MEMPHIS MSA

	Reference Peak Dates			
	Nov. 1969	Nov. 1973	July 1979	Jan. 1981
Coincident Index	10/69 (-1)	7/73 (-4)	5/79 (-2)	2/81 (+1)
Leading Index	6/68 (-17)	12/72 (-11)	5/78 (-16)	9/80 (-4)
Lagging Index	2/70 (+3)	7/74 (+8)	3/80 (+8)	8/81 (+7)
	Reference Trough Dates			
	Aug. 1970	May 1975	July 1980	Oct. 1982
Coincident Index	4/70 (-4)	4/75 (-1)	7/80 (0)	9/82 (-1)
Leading Index	2/70 (-6)	12/74 (-5)	3/80 (-4)	7/82 (-3)
Lagging Index	5/71 (+9)	7/75 (+2)	8/80 (+1)	5/83 (+7)

NOTE: Numbers shown in parenthesis indicate the length of leads (-) and lags (+) in months from the reference dates.

The composite indices of the local area economy have performed well over the four covered business cycles. The coincident index serves as the single best measure of current economic activity in the Memphis area, and the leading index has proven to be useful in gauging the expected level of future activity.

An analysis of the values of the coincident index results in some interesting observations. Earlier it was shown that local recessions tend to be slightly longer than those experienced at the national level. However, the magnitude of those business downturns is typically less severe in the Memphis economy. Similarly, recoveries tend to be less robust in the local area, due primarily to the structure of the local economy which is built around relatively stable service-sector operations and depends less on cyclically-sensitive heavy industries.

In interpreting the indices, trends are more revealing than month-to-month variations. The three indices are interrelated and must be considered together in any analysis of the local business cycle. Their value lies in the corresponding direction of change by all three over relatively long periods of time.

As with any aggregate measure, the composite indices are subject to constant monitoring. Periodic adjustments are dictated by source agency changes in the composition, concept, and benchmarking of primary source data. Major revisions in the structure of the indices are occasionally required in order to reflect structural shifts in the local economy. While every effort is made to keep such changes to a minimum, they are necessary to insure the continued reliability of the index values and their usefulness in measuring the economy of the Memphis area.

References

Bureau of Business and Economic Research. *Memphis Economy*. Memphis: Memphis State University, various issues.

Bureau of Business and Economic Research. *Leading/Lagging Indicators of the Memphis Economy*. Memphis: Memphis State University, various issues.

Carlson, K.M. "Monthly Economic Indicators: A Closer Look at the Coincident Index." *Review*, Federal Reserve Bank of St. Louis, November 1985, pp. 20-30.

Glennon, D. "Measuring Subregional Business Cycles." Staff paper, Bureau of Economic Research, University of Louisville, 1985.

Moore, G.H. *Business Cycle Indicators*. Sponsored by the National Bureau of Economic Research. Princeton: Princeton University Press, 1961.

Ratti, R.A. "A Descriptive Analysis of Economic Indicators." *Review*, Federal Reserve Bank of St. Louis, January 1985, pp. 14-24.

U.S. Department of Commerce. *Business Conditions Digest*. Washington, D.C.: U.S. Government Printing Office, various issues.

U.S. Department of Commerce. *Handbook of Cyclical Indicators*. Washington, D.C.: U.S. Government Printing Office, 1984.

Zarnowitz, V., and C. Boschan. "Cyclical Indicators: An Evaluation and New Leading Indexes." *Business Conditions Digest*. U.S. Department of Commerce. Washington, D.C.: U.S. Government Printing Office, May 1975, pp. v-xix.

Zarnowitz, V., and C. Boschan. "New Composite Indexes of Coincident and Lagging Indicators." *Business Conditions Digest*. U.S. Department of Commerce. Washington, D.C.: U.S. Government Printing Office, November 1975, pp. v-xxi.

THE SOUTHERN CITY REVIEW

*Tom Clark and Shawn Massey**

This column presents an overview of developments occurring in selected cities across the sunbelt. In addition, various trends which are taking place in the economies of these cities and the relevance these trends may have to the Mid-South are discussed. Areas or topics are highlighted which are expected to experience growth or decline.

Miniwarehouses

The demographic trend toward larger numbers of multi-family rental dwellers has increased the need for storage space. This created the miniwarehouse industry's raison d'etre some 15 years ago. Although in many cities such as Dallas and Oklahoma City ministorage facilities have been overbuilt, there is still considerable demand for these warehouses in most southern cities. A growing and largely unrealized component of the market is the need for storage space by businesses. These factors on the demand side of the market have turned the eyes of many investors toward miniwarehouse construction and development. Other factors which attract investors include: a non-saturated market, fast and relatively simple construction, virtually no accounts receivable, and low operating expenses for maintenance and labor.

Leading the way in the development of miniwarehouse projects are syndicated groups such as the California-based Public Storage U.S.A.; Shugard of Seattle; and the newly-formed Memphis company, Storage U.S.A. These investment groups have confined their development projects mainly to metropolitan areas where there is a high concentration of rental dwellers and easy access to major transportation corridors, such as nearby expressway ramps, and major strip developments. With the introduction of climatized storage, what started out to be primarily a mom and pop type of operation in a residential market is now a high-tech, security-oriented enterprise catering to both residential and commercial customers. Businesses are beginning to perceive the miniwarehouse as a safe and inexpensive way to store records and merchandise, freeing up more costly office and showroom space for other uses.

New tax laws have thrown a curve to investors by not allowing them to write off the losses of properties against their ordinary income. This means that property investment is sound only if the investment earns an adequate return. Historically, miniwarehouse ventures have earned between 16.0 and 20.0 percent on investment dollars. These rates of return are most likely out of reach now due to competitive forces in strong market areas, but with proper planning and location selection returns between 12.0 and 18.0 percent are still possible. Profitability of the miniwarehouse industry will be attracting considerable attention from property investors.

Farmland Value

The economy of the South has long been tied to agriculture. This relationship has been at the crux of the volatility that the South's economy has had to endure. One way in which farmers have sought to increase their profitability is to expand the scope of their operations through the purchase of additional farmland. In the mid- to late seventies when farm prices were rising and expected to continue to do so, this kind of policy seemed extremely prudent; however, at the end of the decade commodity prices were on the skids with consecutive bumper crops. Farm loan institutions saw loan losses as high as 2.0 percent of total loans outstanding during the first two years of the 1980s, translating into several billion dollars of losses. A compounding and perhaps contributing factor in this credit crunch was that farmland prices have been on the decline during the last five years. What was once a wise investment and a hedge against the risks of farm production has now become an albatross around the neck of many.

**Graduate Assistants with the Bureau of Business and Economic Research, Memphis State University, Memphis, Tennessee.*

Farmland has fallen in value nationally by 29.0 percent since 1981. In Arkansas and Georgia, farmland values have dropped by 33.0 and 21.0 percent, respectively, indicating that the South has not been able to escape the national trend. Some agricultural economists feel that the bottom has not been reached yet, and continued decreases should be expected in the future. When combined with low farm product prices, the decline in farmland value should put extreme pressure on both farm lenders and small farmers to meet their obligations. This may foreshadow a vicious shakeout in agricultural production.

Missouri: Land of the Rising Sun?

In May, two major Japanese companies, Fuji and Isuzu, announced plans to build a new $500.0 million plant in the U.S. that would begin operating by late 1989. The new facility will employ approximately 2,400 workers on two shifts. The plant's production will be split between the Subaru automobile made by the Fuji Corporation and the Isuzu pickup truck. A decision on the site is expected by summer's end.

One of the top contenders for landing the new facility is Missouri. Although the "Show Me" state lost out in its bid for the General Motors Saturn plant and the Georgetown, Kentucky, Toyota plant, many observers feel that it has a good chance of landing the Fuji/Isuzu plant. The reasoning behind this speculation is that it is felt that the Japanese would be able to maximize their political leverage in the United States if they spread their plants throughout several different states. Japanese automakers already have either operational plants in or commitments with Michigan, Ohio, Illinois, Tennessee, and Kentucky. Missouri seems to be a prime choice, given its central location, good transportation system, and the lure of the state's economic incentives.

SHORTS . . .

(Tallahassee, Florida) Small- to medium-sized cities in Florida may soon be able to form a state-managed bond "pool" for construction and other public works projects. The pool would have the advantage for smaller municipalities of being able to capitalize on the state's higher bond rating. This means money quicker and at cheaper rates for the cities and less risk for municipal bond investors.

(New Orleans, Louisiana) In a nationwide study, St. Tammany Parrish was ranked as the eighth fastest growing county in the country. The secret county officials attribute to their policy of allowing only development of office and industrial parks which retain the flavor of the region.

(Nashville, Tennessee) What's BIG? Think small. Eighty thousand small businesses in the state provide 1.25 million jobs and one half of the $50.0 billion of goods and services produced in the state.

(Waldenburg, Arkansas) Arkansas Representative Bill Alexander, in an address to the Farm Bureau Forum, attributed the adverse climate of U.S. export trade to the government's "strong dollar" policy. Alexander made note of the devaluation policy of the Nixon era and its positive effect on export trade, including agricultural commodities.

(Memphis, Tennessee) Getting rich quick is not the message of one Memphis entrepreneur. **Start a Business,** a new bookstore in Memphis, is specializing in how-to manuals for would-be entrepreneurs. A study performed by M.I.T. noted that high growth in the small business sector has placed Memphis at the top of the list of entrepreneurs per capita in major cities in the United States. Researcher David Birch said that the city is on its way to becoming a major business center, with many of the new small businesses showing significant growth potential.

The MID-SOUTH BUSINESS JOURNAL is available without charge. Please use this form to request a subscription or change an address and return to:

Bureau of Business and Economic Research
The Fogelman College of Business and Economics
Memphis State University
Memphis, Tennessee 38152

Check one:

☐ New subscriber

☐ Correction

Name and address:

Name _____

Address _____

City/State/Zip _____

Previous address for correction:

Address _____

City/State/Zip _____

MID-SOUTH BUSINESS JOURNAL (PUB 885720)
BUREAU OF BUSINESS AND ECONOMIC RESEARCH
THE FOGELMAN COLLEGE OF BUSINESS AND ECONOMICS
MEMPHIS STATE UNIVERSITY
MEMPHIS, TENNESSEE 38152

Second class postage
paid at Memphis, Tennessee